

# *MAT 598: C\*-Algebras*

*Spring 2019*

Instructor: S. Kaliszewski [kaliszewski@asu.edu](mailto:kaliszewski@asu.edu)

Class #: 31436

Schedule: T Th 1:30–2:45pm

Location: Tempe – Main Campus

Text: G. Murphy, *C\*-Algebras and Operator Theory*

## *Course Description*

This course is an introduction to  $C^*$ -algebras. Topics covered will include: Spectrum, Gelfand transform, ideals and representations, states and the GNS construction, and the Gelfand-Naimark theorem. (In short, the first three chapters of Murphy's book.)

The course is intended for graduate students in mathematics, and will assume familiarity with real analysis, metric spaces, and linear algebra at the level of MAT 472 (Intermediate Real Analysis) and MAT 442 (Advanced Linear Algebra). Exposure to point-set topology, measure theory, and elementary functional analysis will be an advantage, but not a requirement; we will supplement the text with background material in order to accommodate the needs of the class. Advanced undergraduates and graduate students in other fields are also welcome, with instructor approval.