MAT 551: Real Analysis III

TEXTBOOK:


OTHER REFERENCES:


INSTRUCTOR:

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TOPICS COVERED:

1) Review of Banach, Hilbert, and locally convex vector spaces.

2) Bounded compact operators, the spectral theorem.

3) Unbounded operators, symmetric and self adjoint operators, general spectral theorem.

4) Applications to linear partial differential equations.

5) Some techniques for nonlinear equations: calculus of variations, fixed point theorems, sub and super solutions, soft and hard implicit function theorems.

GRADE:

The grade will be based on homeworks and class participation.
DSS advisory. If you have a physical, psychiatric, medical, or learning disability that may affect your ability to carry out the assigned coursework, please contact the office of Disabled Student Services (DSS), Humanities Building, room 133, telephone 632-6748/TDGD. DSS will review your concerns and determine what accommodations may be necessary and appropriate. All information and documentation of disability is confidential.