

Methods of Theoretical Physics
Physics 5340
Fall 2019

Syllabus

Matrices and Vector Spaces (selected topics)
Fourier Series
Integral Transforms
Ordinary Differential Equations (review)
Eigenfunctions, Eigenvalues, Green's functions
Special Functions
Partial Differential Equations
Calculus of Variations
Integral Equations

Grading:

Midterms (2) 50 %
Final Exam 40% (Time TBD)
Homework 10%

Textbook: Essential Mathematical Methods by K. F. Riley and M. P. Hobson, Cambridge Univ. Press.

This textbook is a shortened version of the very comprehensive text: Mathematical Methods for Physics and Engineering, 3rd Edition, by K. F. Riley, M. P. Hobson, and S. J. Bence, Cambridge Univ. Press.

USU welcomes students disabilities. If you have or suspect that you may have a physical, mental, or learning disability that may require accommodations in this course, please contact the Disability Resource Center (DRC) as early in the semester as possible (University Inn #101, 435)797-2444, drc@usu.edu). All disability related accommodations must be approved by the DRC. Once approved, the DRC will coordinate with faculty to provide accommodations.