

Physics 4321:

Theoretical Methods

Spring 2026

TTh 12:30pm Rm 60

Instructor: Professor Fredrick Olness

Office: Room 201, Fondren Science

Telephone: 768-2500 olness@smu.edu

Office Hours I am available most any time, especially following class at 2pm and most afternoons. For a class this size, I find it easier if you just set up an appointment individually. I am also available for review sessions before the exams if requested.

Suggested Text: **Mary Boas: Mathematical Methods in the Physical Sciences**

References: Arfken, Webber, Harris: Mathematical Methods For Physicists

Zimmerman & Olness: Mathematica for Physics

Schaum's Outline of Mathematical Handbook of Formulas ...

COURSE WEB PAGE:

Linked from below under "Physics Courses"

www.physics.smu.edu/olness

Grading: The final course grade will be determined as follows.

Homework 50%, Exams 30%, Final 20%.

Homework: Homework is to be handed in as scheduled. Even though the homework is graded, you are encouraged to work together on the assignments.

Homework is roughly assigned weekly, and solutions are posted on the web following the assignments; these are often in Mathematica so you can try out the solutions interactively.

Exams: There will be 2 exams during the semester, in addition to the final.