

## **PHY-503 : Methods of Mathematical Physics**

**Ismail Zahed**

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### **Outline**

1. Variational Calculus
2. Function Spaces
3. Ordinary Differential Equations
4. Greens' Functions
5. Partial Differential Equations
6. Special Functions
7. Integral Equations
8. Tensor Analysis
9. Group Theory
10. Complex Analysis

### **Reference Material**

M. Stone and P. Goldbart, "Mathematics for Physics", Ed. Cambridge 2010.

### **Grade**

The grade will be : Hw (20%) + Mid (40%) + Fin (40%)

### **Grader**

TBA