

Physics 160 Checklist

The following skills are recommended for Physics 160, University Physics. Choose the following textbook from the dropdown menu:

Goldstein: Calculus and Its Applications, 12e

Once you have chosen the textbook, click on the words “study plan”. Expand the Chapter + to see the individual sections. For each section below, start by watching the section video then proceed to exercises. If you need help with an exercise, you can click on the menu to the right of the exercise for help, to read the related section of the textbook, or to see additional examples.

- ☐ Chapter O - Orientation Questions for Students
- ☐ Chapter GR– Getting Ready for Calculus
 - GR.1 Basics – Exponents, Scientific Notation, Radicals
 - GR.2 Algebra – Linear Equations, Quadratic Equations, Systems of Equations, Translations of Graphs
 - GR.3 Exponential and Logarithmic Functions
- ☐ Chapter 1 – The Derivative
 - Sections 1.1-1.8
- ☐ Chapter 2 – Applications of the Derivative
- ☐ Chapter 3 – Techniques of Differentiation
 - Sections 3.1-3.3 Product, quotient, power rules, Chain rule, and Implicit Differentiation
- ☐ Chapter 4 – Exponential and Natural Log Functions
 - Sections 4.1- 4.6 The functions and their derivatives
- ☐ Chapter 5 – Applications of the Exponential and Natural Log Functions
- ☐ Chapter 6 – The Definite Integral
 - 6.1 -6.5 – Anti-differentiation, Riemann Sums and Applications
- ☐ Chapter 8 –The Trigonometric Functions
 - Sections 8.1-8.4 Radian measure, Sine and Cosine functions and their derivatives
- ☐ Chapter 9 –Techniques of Integration
 - Sections 9.1-9.5- substitution, integration by parts, and applications