

UCEAP Summer Physics Preparation

To determine readiness for this intensive physics program, we strongly recommend applicants take these Math Readiness Tests to discover which topics need review. Videos below show workings of some of the questions in detail.

Math Readiness Tests:

1. [SI Units and Standard Form](#)
2. [Dimensional Analysis](#)
3. [Algebra](#)
4. [Quadratic Equations](#)
5. [Trigonometry](#)
6. [Vectors](#)
7. [Differentiation](#)
8. [Integration](#)

Review videos:

Watch these Khan Academy videos to check your understanding of:

1. [Intro to dimensional analysis](#)
2. [Algebra and distributivity](#)
3. [Solving quadratics](#)
4. [Introduction to trigonometric ratios](#)
5. [A general introduction to vectors and scalars](#)
6. [Calculus and use of derivative as slope of a curve](#)
7. [Using calculus to find local minima and maxima](#)
8. [Integration as a tool to find area](#)

Review booklet for algebra:

Review and practice the core algebra required using this booklet (sections 1-10)

1. [An algebra refresher](#)

Worked solutions for tests:

Worked solutions to some of the questions in the eight tests linked above

1. [SI Units question 1](#)
2. [Dimensional analysis question 1](#) and [Dimensional analysis question 5](#)
3. [Algebra question 1](#) and [Algebra question 5](#)
4. [Quadratics question 1](#) and [Quadratics question 5](#)
5. [Trigonometry question 1](#) and [Trigonometry question 6](#)
6. [Vectors question 1](#) and [Vectors question 5](#)
7. [Differentiation question 1](#) and [Differentiation question 5](#)
8. [Integration question 1](#) and [Integration question 5](#)