



# AceTute Y11/12 NSW HSC Physics Syllabus

2014 Revision

# AceTute

AceTute's Year 11 and 12 Physics courses prepares students not only for the topics conducted under the NSW Department of Education and Training HSC and Preliminary Syllabus, but also for the format and layout of the final and University style exams. Our courses aim to accelerate the topics normally covered by high schools and work at a pace which is comfortable for the student and their parents/caregivers

## Physics Year 11 NSW

### Term 1: The World Communicates

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1. The Wave Model and the Transfer of Information
2. The Wave Model and the Properties of Sound
3. The Electromagnetic Spectrum
4. Reflection and Refraction of Electromagnetic Waves
5. Electromagnetic Waves and Technology
6. Termly Revision

### Term 2: Electrical Energy in the Home

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1. Electricity
2. The Movement of Electricity and Electric Circuits
3. Series and Parallel Circuits
4. Power and Energy
5. Electric Currents and Magnetic Fields
6. Safety Devices
7. Termly Revision

### Term 3: Moving About

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1. Speed and Velocity
2. External Forces, Acceleration and Deceleration
3. Kinetic Energy and Energy Transformations
4. Momentum
5. Changing Momentum
6. Termly Revision

### Term 4: The Cosmic Engine

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1. The Universe
2. The First Minutes of the Universe and Forming Stars and Galaxies
3. Stars
4. The Sun
5. Yearly Revision

## Physics Year 12 NSW

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### Term 1: Space

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1. Earth's Gravitational Field
2. Rocket Launch, Orbit and Returning to Earth
3. Gravity
4. Time and Space
5. Termly Revision

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### Term 2: Motors and Generators

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1. Motors, Force, Current-carrying Conductors and Magnetic Fields
2. Conductor, Magnetic Field and Electrical Voltage
3. Generators
4. Transformers
5. Motors
6. Termly Revision

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### Term 3: From Ideas to Implementation

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1. Cathode Rays
2. Light, the Photoelectric Effect and Black Body Radiation
3. Transistors
4. Superconductivity
5. Trial Revision

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### Term 4: Option

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1. Student Selected Option
2. Final Exam Revision



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