# Sample Scope and Sequence: Physics – Year 12

***Sample for implementation for Year 12 from Term 4, 2018***

| **Term 4** | **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** | **Week 7** | **Week 8** | **Week 9** | **Week 10** |
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| **Module 5: Advanced Mechanics**  Students investigate more complex kinematic situations involving multiple dimensions and varying force components. Students examine projectile motion and circular motion, among others. | | | | | | | **Module 6: Electromagnetism** | | |
| PH11/12-4, PH11/12-5, PH11/12-6, PH11/12-7, PH12-12 | | | | | | | PH11/12-1, PH11/12-2, PH11/12-3, PH11/12-4, PH11/12-5, PH12-13 | | |
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| **Term 1** | **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** | **Week 7** | **Week 8** | **Week 9** | **Week 10** |
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| **Module 6: Electromagnetism**  Students examine the interactions that take place between charged particles and electric/magnetic fields, including their application in electricity production and their uses in motors. | | | | | | **Module 7: The Nature of Light**  Students investigate the theories of light as well as their significant and profound modifications as a result of the quantum theory. | | | |
| **Depth Study (6 hours)** | | | | | |  | | | |
| PH11/12-1, PH11/12-2, PH11/12-3, PH11/12-4, PH11/12-5, PH12-13 | | | | | | PH11/12-1, PH11/12-2, PH11/12-3, PH11/12-4, PH11/12-7, PH12-14 | | | |

| **Term 2** | **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** | **Week 7** | **Week 8** | **Week 9** | **Week 10** |
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| **Module 7: The Nature of Light**  The properties of light and their consequences are explored in relativity and applications of the quantum theory. | | | | | | **Module 8: From the Universe to the Atom** | | | |
| PH11/12-1, PH11/12-2, PH11/12-3, PH11/12-4, PH11/12-7, PH12-14 | | | | | | PH11/12-5, PH11/12-6, PH11/12-7, PH12-15 | | | |
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| **Term 3** | **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** | **Week 7** | **Week 8** | **Week 9** | **Week 10** |
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| **Module 8: From the Universe to the Atom**  Students explore the theories of the probable origins of the universe and the machinations of its components. This is then explored in the context of the smallest units of matter and the theories underpinning our understanding of physics at the smallest scales. | | | | | **Depth Study (9 hours)** | | | **Module 8: From the Universe to the Atom** | |
| PH11/12-5, PH11/12-6, PH11/12-7, PH12-15 | | | | | PH11/12-5, PH11/12-6, PH11/12-7, PH12-15 | | |  | |