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| Physics 30 2012/2013 Semester 1 (general calendar) | | | | | |
| **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| **September 3** | **4** | **5** | **6** | **7** |
| **Labour Day** | Review of Physics 20   * kinematics * vectors, trigonometry | Review of Physics 20   * UCM, dynamics | **NSS camp** | **NSS camp** |
| **10** | **11** | **12** | **13** | **14** |
| Lesson 1 – Momentum in 1 Dimension   * Optional lecture | Lesson 1 Activity – *1D Momentum* | Hand-in Lesson 1  Lesson 2 – 2D Momentum   * Optional lecture | Work period | Hand-in Lesson 2  Lesson 2 Activity – *2D Momentum* |
| **17** | **18** | **19** | **20** | **21** |
| Lesson 3 – Impulse, Change in Momentum | Hand-in Lesson 3  Quiz   * Lessons 1 to 3 | Lesson 4 – Graphing  Review 1 to 4 | Hand-in Lesson 4  Doomsday test   * Lessons 1 to 4 | **Non-Instruction day** |
| **24** | **25** | **26** | **27** | **28** |
| Lesson 5 – Introduction to Light | Work period | Hand-in Lesson 5  Lesson 6 – Reflection | Hand-in Lesson 6  Lesson 7 – Curved mirrors | Lesson 7 activity  work period |
| **October 1** | **2** | **3** | **4** | **5** |
| Hand-in Lesson 7  Lesson 8 – Refraction   * Optional lecture | Quiz   * Lessons 5 to 7 | Hand-in Lesson 8  Lesson 8 Activity | Lesson 9 – Lenses | Hand-in Lesson 9  Lesson 9 Activity |
| **8** | **9** | **10** | **11** | **12** |
| **Thanksgiving day** | Quiz   * Lesson 8 to 9 | Lesson 10 – Dispersion, scattering, colour, polarisation   * activity | Hand-in Lesson 10  Lesson 11 – Double slit interference   * Optional lecture | Hand-in Lesson 11  Lesson 12 – Diffraction gratings   * activity |
| **15** | **16** | **17** | **18** | **19** |
| Hand-in Lesson 12  Quiz   * Lessons 10 to 12 | Review 1 to 12 | Doomsday Test  Lessons 1 to 12 | Lesson 13 Activity – *Electrostatics* | work period |
| **22** | **23** | **24** | **25** | **26** |
| Hand-in Lesson 13  Lesson 14 – Coulomb’s Law   * Optional lecture | work period | Hand-in Lesson 14  Quiz   * Lesson 13 to 14 | Lesson 15 – Electric Fields | **Non-Instruction day** |

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| **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| **29** | **30** | **31** | **November 1** | **2** |
| Hand-in Lesson 15  Lesson 16 – Electric potential | Hand-in Lesson 16  Lesson 17 – Parallel plates   * Optional lecture | Hand-in Lesson 17  Lesson 18 – Electric current | Hand-in Lesson 18  Quiz   * Lessons 15 to 18 | Review 1 to 18 |
| **5** | **6** | **7** | **8** | **9** |
| Doomsday test   * Lessons 1 to 18 | Lesson 19 – Magnetic fields | Hand-in Lesson 19  Lesson 20 – Magnetic forces on charged particles | Hand-in Lesson 20  Lesson 21 – Motor effect | Hand-in Lesson 21  Quiz   * Lessons 19 to 21 |
| **12** | **13** | **14** | **15** | **16** |
| Lesson 22 – Generator effect | Hand-in Lesson 22  Lesson 23 Activity – *Lenz’s Law* | Hand-in Lesson 23  Lesson 24 – Electro-magnetic radiation | **Classes finish at 11:15**  **Parent-Teacher Interviews**  **1:00 to 8:00** | **Non-Instruction day** |
| **19** | **20** | **21** | **22** | **23** |
| work period | Hand-in Lesson 24  Quiz   * Lessons 22 to 24 | Review 1 to 24 | Doomsday Test   * Lessons 1 to 24 | Lesson 25 – Early Atomic Models  Lesson 26 – Cathode Rays |
| **26** | **27** | **28** | **29** | **30** |
| work period | Hand-in Lesson 26  Lesson 27 – Rutherford’s Model of the Atom | Hand-in Lesson 27  Lesson 28 – Quantization of Light   * Optional lecture | Quiz   * Lessons 25 to 27 | Hand-in Lesson 28  Lesson 29 – Photoelectric effect |
| **December 3** | **4** | **5** | **6** | **7** |
| Hand-in Lesson 29  Lesson 29 Activity – *Photoelectric* **phet** *effect* | Mark Lesson 29 activity  Lesson 30 – Light Spectra & Excitation States   * Optional lecture | Work period | Hand-in Lesson 30  Lesson 31 – The Bohr Model | **Non-Instruction day** |
| **10** | **11** | **12** | **13** | **14** |
| Quiz   * Lesson 28 to 30 | Hand-in Lesson 31  Lesson 32 – X-rays and Compton Effect   * Optional lecture | Work period | Hand-in Lesson 32  Lesson 33 – Waves and Particles   * Optional lecture/video | Hand-in Lesson 33  Quiz   * Lesson 31 to 33 |

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| **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| **17** | **18** | **19** | **20** | **21** |
| Lesson 34 – Wave Mechanics/Uncertainty   * optional   Review 1 to 33 | Doomsday Test   * Lessons 1 to 33 | Lesson 35 – Nuclear physics | Hand-in Lesson 35  Lesson 36 – Radioactivity | **Non-Instruction day** |
| **January 7** | **8** | **9** | **10** | **11** |
| **No classes** | Hand-in Lesson 36  Quiz   * Lesson 35 to 36 | Lesson 37 – particle physics   * Optional lecture | Hand-in Lesson 37  Lesson 38 – quarks | Hand-in Lesson 38  Doomsday Test  Lessons 35 to 38  Marks due at 2:30 pm |
| **14** | **15** | **16** | **17** | **18** |
| Diploma prep. | Diploma prep. | Diploma prep. | Diploma prep. | Diploma prep. |
| **21** | **22** | **23** | **24** | **25** |
| Diploma prep. | Diploma prep. | Diploma prep. | Diploma prep. | Diploma prep. |
| **28** | **29** | **30** | **31** | **February 1** |
| **Diploma Exam**  9:00 AM  2 hours + 30 minutes |  |  |  |  |