**Semester 2 Assignment Plan**

**Regular Physics**

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| Date | Topic | Book Chap: Read/Notes  Click for more info | Practice Probs. | Section Review Questions | End of Chapter Questions and Problems | Problem Sets | Labs/Sims | Test |
| [Jan 7-11](#Week_1) | Light Fundamentals | [Ch 16](#ch16link) | 1-6; 14 | 7-10; 12-13; 18-23 | 25-44; 40-51; 53-55, 57-59, 61-62; 65, 67, 70-71 |  |  |  |
| [Jan 14-17](#Week_2) | Reflection | [Ch 17](#ch17link) | 1-5 | 6-11 | 30-36; 44-45;53-60 |  |  | Light Test |
| [Jan 22-25](#Week_3) |  |  | 12-16;17-21 | 22-29 | 37-43; 46-52; 61-73;75-82,84,87,88 |  |  | Reflection Test |
| [Jan 28-Feb 1](#Week_4) | Refraction | [Ch 18](#ch18link) | 1-5 | 6-14 |  |  |  |  |
| [Feb 4-8](#Week_5) |  |  | 15-19; 20-24 | 25-26,28-30; 31-36 |  |  |  | Light,Reflection and Refraction Test |
| [Feb 11-13](#Week_6)  Mid Q PT Conf | Waves | Ch 14 |  |  |  |  |  |  |
| [Feb 19-22](#Week_7) |  |  |  |  |  |  |  | Wave test |
| [Feb 25- Mar 1](#Week_8) | Sound | Ch 15 |  |  |  |  |  |  |
| Mar 4-8 |  |  |  |  |  |  |  | Sound Test |
| Mar 11-15 | Static | Ch 20 |  |  |  |  |  |  |
| Mar 18-22  End 3rd Q |  |  |  |  |  |  |  | Static Test |
| Spring Break |  |  |  |  |  |  |  |  |
| Apr 2- 5 | Current | Ch 22 |  |  |  |  |  |  |
| Apr 8-12 |  |  |  |  |  |  |  | Current Test |
| Apr 15-19 | Circuits | 23 |  |  |  |  |  |  |
| Apr 22-26 |  |  |  |  |  |  |  | Circuit Test |
| Apr 29-May 3  MQ | Nuclear Physics | Ch 30 |  |  |  |  |  |  |
| May 6-10 |  |  |  |  |  |  |  | Nuclear Test |
| May 13-17 | Rockets |  |  |  |  |  |  |  |
| May 20-24 | Xtra Time  Reviewing for finals |  |  |  |  |  |  | Rocket Flight |
| May 28-31  Final Exams  End of Year |  |  |  |  |  |  |  | Final Exams |
| Jun 3-7  Xtra Days if Required |  |  |  |  |  |  |  |  |

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| **Chapter Section** | **Pages** | **Objectives** | **Vocab** | **Concepts** |
| 16.1 Illumination | 430-438 | Develop the ray model of light  Predict the effect of distance on light’s illuminance  Solve problems involving the speed of light | Ray model; luminous source; illuminated source; opaque; transparent; translucent; luminous flux; illuminance | Illumination; Ray model ; Sources of light; Quantity of light; inverse square law; Luminous intensity; Point source illuminance equation; Speed of light |
| 16.2 Wave Nature of Light | 439-447 | Describe how diffraction demonstrates that light is a wave  Predict the effect of mixing colors of light and pigment  Explain phenomena such as polarization and the Doppler effect | Diffraction; primary color; secondary color; complementary color; primary pigment; secondary pigment; polarized | Diffraction; Wave model of light; Color addition; Color subtraction; Polarization; Relative motion and light; the Doppler effect; speed of light equation |
| Ch 17.1 Reflection from Plane Mirrors | 456-463 | Explain the Law of Reflection  Distinguish between specular and diffuse reflection  Locate images formed by plane mirrors | Law of Reflection; specular reflection; diffuse reflection; plane mirror; object; image; virtual image | Law of Reflection; specular reflection; diffuse reflection; virtual image; properties of plane mirrors |
| Ch 17.2 Curved Mirrors | 464-473 | Explain how concave and convex mirrors form images  Describe the properties and uses of curved mirrors  Determine the locations and sizes of curved mirror images | Concave mirror; convex mirror; principle axis; focal point; focal length; real image; spherical aberration; magnification | focal point; focal length; Graphical method of finding images; ray tracing; spherical aberration; Mirror equation; magnification equation; image properties |
| Ch 18.1 | 484-492 | Solve problems involving refraction  Explain total internal reflection  Explain some optical effects caused by refraction | Refraction; index of refraction; Snell’s law; critical angle; total internal reflection; dispersion | Wave model of refraction; index of refraction equation; Snell’s law equation; critical angle equation; total internal reflection; mirage; dispersion; rainbows |
| Con’t below |  |  |  |  |
| Ch 18.2 | 493-499 | Describe how real and virtual images are formed by single concave and convex lenses  Locate images formed by lenses by ray tracing and equations  Explain how chromatic aberration can be reduced | Lens; convex lens; concave lens; thin lens equation; chromatic aberration; achromatic lens | convex lens; concave lens; thin lens equation; magnification equation; image properties; chromatic aberration; achromatic lens |
| Ch 18.3 | 500-503 | Describe hoe the eye focuses light to form an image  Explain farsightedness and nearsightedness and how eyeglasses correct these defects  Describe the optical system in some common optical instruments | farsightedness ;nearsightedness; cornea; iris; pupil; retina | Lenses in eyes; focusing; farsightedness; nearsightedness; eyeglasses; refracting telescope; binoculars; cameras; microscopes |

**Regular Physics Weekly Lesson Plan**

Week 1: Jan 7-11

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| **Day** | **Section** | **Concepts** | **Lecture Topic** | **Demos** | **Labs** | **Videos** | **Homework** | **Test/ Quiz** |
| **Monday** |  |  |  |  |  |  |  |  |
| **Tuesday** |  |  |  |  |  |  |  |  |
| **Wednesday** |  |  |  |  |  |  |  |  |
| **Thursday** |  |  |  |  |  |  |  |  |
| **Friday** |  |  |  |  |  |  |  |  |
| **Next Week** |  |  |  |  |  |  |  |  |

**Regular Physics Weekly Lesson Plan**

Week 2: Jan 14-17

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| **Day** | **Section** | **Concepts** | **Lecture Topic** | **Demos** | **Labs** | **Videos** | **Homework** | **Test/ Quiz** |
| **Monday** |  |  |  |  |  |  |  |  |
| **Tuesday** |  |  |  |  |  |  |  |  |
| **Wednesday** |  |  |  |  |  |  |  |  |
| **Thursday** |  |  |  |  |  |  |  |  |
| **Friday** |  |  |  |  |  |  |  |  |
| **Next Week** |  |  |  |  |  |  |  |  |

**Regular Physics Weekly Lesson Plan**

Week 3: Jan 22-25

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| **Day** | **Section** | **Concepts** | **Lecture Topic** | **Demos** | **Labs** | **Videos** | **Homework** | **Test/ Quiz** |
| **Monday** |  |  |  |  |  |  |  |  |
| **Tuesday** |  |  |  |  |  |  |  |  |
| **Wednesday** |  |  |  |  |  |  |  |  |
| **Thursday** |  |  |  |  |  |  |  |  |
| **Friday** |  |  |  |  |  |  |  |  |
| **Next Week** |  |  |  |  |  |  |  |  |

**Regular Physics Weekly Lesson Plan**

Week 4: Jan 7-11

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| **Day** | **Section** | **Concepts** | **Lecture Topic** | **Demos** | **Labs** | **Videos** | **Homework** | **Test/ Quiz** |
| **Monday** |  |  |  |  |  |  |  |  |
| **Tuesday** |  |  |  |  |  |  |  |  |
| **Wednesday** |  |  |  |  |  |  |  |  |
| **Thursday** |  |  |  |  |  |  |  |  |
| **Friday** |  |  |  |  |  |  |  |  |
| **Next Week** |  |  |  |  |  |  |  |  |

**Regular Physics Weekly Lesson Plan**

Week 5: Jan 7-11

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| **Day** | **Section** | **Concepts** | **Lecture Topic** | **Demos** | **Labs** | **Videos** | **Homework** | **Test/ Quiz** |
| **Monday** |  |  |  |  |  |  |  |  |
| **Tuesday** |  |  |  |  |  |  |  |  |
| **Wednesday** |  |  |  |  |  |  |  |  |
| **Thursday** |  |  |  |  |  |  |  |  |
| **Friday** |  |  |  |  |  |  |  |  |
| **Next Week** |  |  |  |  |  |  |  |  |

**Regular Physics Weekly Lesson Plan**

Week 6: Jan 7-11

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| **Day** | **Section** | **Concepts** | **Lecture Topic** | **Demos** | **Labs** | **Videos** | **Homework** | **Test/ Quiz** |
| **Monday** |  |  |  |  |  |  |  |  |
| **Tuesday** |  |  |  |  |  |  |  |  |
| **Wednesday** |  |  |  |  |  |  |  |  |
| **Thursday** |  |  |  |  |  |  |  |  |
| **Friday** |  |  |  |  |  |  |  |  |
| **Next Week** |  |  |  |  |  |  |  |  |

**Regular Physics Weekly Lesson Plan**

Week 7: Jan 7-11

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| **Day** | **Section** | **Concepts** | **Lecture Topic** | **Demos** | **Labs** | **Videos** | **Homework** | **Test/ Quiz** |
| **Monday** |  |  |  |  |  |  |  |  |
| **Tuesday** |  |  |  |  |  |  |  |  |
| **Wednesday** |  |  |  |  |  |  |  |  |
| **Thursday** |  |  |  |  |  |  |  |  |
| **Friday** |  |  |  |  |  |  |  |  |
| **Next Week** |  |  |  |  |  |  |  |  |

**Regular Physics Weekly Lesson Plan**

Week 8: Jan 7-11

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| **Day** | **Section** | **Concepts** | **Lecture Topic** | **Demos** | **Labs** | **Videos** | **Homework** | **Test/ Quiz** |
| **Monday** |  |  |  |  |  |  |  |  |
| **Tuesday** |  |  |  |  |  |  |  |  |
| **Wednesday** |  |  |  |  |  |  |  |  |
| **Thursday** |  |  |  |  |  |  |  |  |
| **Friday** |  |  |  |  |  |  |  |  |
| **Next Week** |  |  |  |  |  |  |  |  |