**Semester 2 Assignment Plan**

**Regular Physics**

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| Date | Topic | Book Chap: Read/NotesClick 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 18-22End 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 3MQ | Nuclear Physics | Ch 30 |  |  |  |  |  |  |
| May 6-10 |  |  |  |  |  |  |  | Nuclear Test |
| May 13-17 | Rockets |  |  |  |  |  |  |  |
| May 20-24 | Xtra TimeReviewing for finals |  |  |  |  |  |  | Rocket Flight |
| May 28-31Final ExamsEnd of Year |  |  |   |  |  |  |  | Final Exams |
| Jun 3-7Xtra Days if Required |  |  |  |  |  |  |  |  |

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| **Chapter Section** | **Pages** | **Objectives** | **Vocab** | **Concepts** |
| 16.1 Illumination | 430-438 | Develop the ray model of lightPredict the effect of distance on light’s illuminanceSolve 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 wavePredict the effect of mixing colors of light and pigmentExplain 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 ReflectionDistinguish between specular and diffuse reflectionLocate 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 imagesDescribe the properties and uses of curved mirrorsDetermine 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 refractionExplain total internal reflectionExplain 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 lensesLocate images formed by lenses by ray tracing and equationsExplain 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 imageExplain farsightedness and nearsightedness and how eyeglasses correct these defectsDescribe 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** |  |  |  |  |  |  |  |  |