

| <b>Unit I - Motion</b>                                |                     |   |                            |                                      |
|---|---------------------|---|----------------------------|--------------------------------------|
|   |                     | Topic                                   | Quiz/HW                    | Lab                                  |
| Week 1  | Sept. 4             | <i>No Lecture</i>                       | Due Sept. 10<br>at 11:59pm |                                      |
|   | Lect 1<br>Sept. 6   | Intro (units<br>and vectors)            |                            |                                      |
| Week 2  | Lect 2a<br>Sept. 11 | Motion with<br>Constant<br>velocity     | Due Sept. 17<br>at 11:59pm | Lab 1:<br>Introduction<br>to Physics |
|   | Lect 2b<br>Sept. 13 | Motion with<br>Constant<br>acceleration |                            |                                      |
| Week 3  | Lect 3a<br>Sept. 18 | 2D Motion                               | Due Sept. 24<br>at 11:59pm | Lab 2:<br>Projectile<br>Motion       |
|   | Lect 3b<br>Sept 20  | 1st and 2nd<br>Laws                     |                            |                                      |
| Week 4  | Lect 4a<br>Sept. 25 | Review                                  |                            | <i>No Lab</i>                        |
| <b><i>Exam 1 on Sept 26 from 5:45pm to 7:00pm</i></b> |                     |   |                            |                                      |

| <b>Unit II - Motion in Systems</b> |                     |                                     |                           |                           |
|------------------------------------|---------------------|-------------------------------------|---------------------------|---------------------------|
|                                    |                     | Topic                               | Quiz/HW                   | Lab                       |
| Week 4                             | Lect 4b<br>Sept. 27 | Third Law                           | Due Oct. 1 at<br>11:59pm  | <i>Make-Up<br/>Labs</i>   |
| Week 5                             | Lect 5a<br>Oct. 2   | Friction, Circ.<br>Motion &<br>Drag | Due Oct. 8 at<br>11:59pm  | Lab 3: Static<br>Friction |
|                                    | Lect 5b<br>Oct. 4   | Work-Energy<br>Theorem              |                           |                           |
| Week 6                             | Lect 6a<br>Oct. 9   | PE and E<br>Conserv                 | Due Oct. 15<br>at 11:59pm | Lab 4: Loop-<br>de-Loop   |
|                                    | Lect 6b<br>Oct. 11  | Momentum                            |                           |                           |
| Week 7                             | Lect 7a<br>Oct. 16  | Rotational<br>Energy                | Due Oct. 22<br>at 11:59pm | Lab 5: Beam<br>Balance    |
|                                    | Lect 7b<br>Oct. 18  | Statics                             |                           |                           |

|   |                    |        |  |               |
|---|--------------------|--------|--|---------------|
| Week 8  | Lect 8a<br>Oct. 23 | Review |  | <i>No Lab</i> |
| <b>Exam 2 on Oct 24 from 5:45pm to 7:00pm</b> |                    |        |  |               |

| <b>Unit III - Real-World Systems</b>          |                     |                          |                        |                          |
|---|---------------------|--------------------------|------------------------|--------------------------|
|   |                     | Topic                    | Quiz/HW                | Lab                      |
| Week 8  | Lect 8b<br>Oct. 25  | Simple Harmonic Motion   | Due Oct. 29 at 11:59pm | <i>Make-Up Labs</i>      |
| Week 9  | Lect 9a<br>Oct. 30  | Wave Properties          | Due Nov. 5 at 11:59pm  | Lab 6: Pendulum          |
|   | Lect 9b<br>Nov. 1   | Interference             |                        |                          |
| Week 10                                       | Lect 10a<br>Nov. 6  | Sound Waves              | Due Nov. 12 at 11:59pm | Lab 7: Waves on a String |
|   | Lect 10b<br>Nov. 8  | Fluid Statics            |                        |                          |
| Week 11                                       | Lect 11a<br>Nov. 13 | Fluids in Motion         | Due Nov. 19 at 11:59pm | Lab 8: Buoyancy          |
|   | Lect 11b<br>Nov. 15 | Viscosity and Turbulence |                        |                          |
| Week 12                                       | Lect 12a<br>Nov. 20 | Review                   |                        | <i>No Lab</i>            |
| <b>Exam 3 on Nov 21 from 5:45pm to 7:00pm</b> |                     |                          |                        |                          |

| <b>Unit IV - Thermodynamics</b> |                     |                                |                        |                       |
|---------------------------------|---------------------|--------------------------------|------------------------|-----------------------|
|                                 |                     | Topic                          | Quiz/HW                | Lab                   |
| Week 12                         | Lect 12b<br>Nov. 22 | <b>Special Topics</b>          |                        | <i>Make-Up Labs</i>   |
| Week 13                         | Lect 13a<br>Nov. 27 | Temperature and Kinetic Energy | Due Dec. 3 at 11:59pm  | Lab 9: Ideal Gas Law  |
|                                 | Lect 13b<br>Nov. 29 | Heat and Phase Changes         |                        |                       |
| Week 14                         | Lect 14a<br>Dec. 4  | Thermodynamic Processes        | Due Dec. 10 at 11:59pm | Lab 10: Specific Heat |
|                                 | Lect 14b<br>Dec. 6  | Heat Engines                   |                        |                       |

|   |                     |         |                           |                         |
|---|---------------------|---------|---------------------------|-------------------------|
| Week 15   | Lect 15a<br>Dec. 11 | Entropy | Due Dec. 13<br>at 11:59pm | <i>Make-Up<br/>Labs</i> |
|   | Lect 15b<br>Dec. 13 | Review  |                           |                         |
| <b><i>Final Exam on Dec. 19 from 2:45pm to 4:45pm</i></b> |                     |         |                           |                         |