**Course Outline AP Physics 1**

**S. Y. 2019-2020**

**Textbook: College Physics for the AP Physics 1 Course Second Edition**

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*Based on College Board’s recommendations including Labs and Assessments*

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| **Chapter** | **Sessions of 45 Minute Block** | **Cumulative Sessions** | **Sessions of 90 Minute Block** | **Cumulative Sessions** |
| **Unit 1: Kinematics**  Ch 1. Introduction | 6 | 6 | 3 | 3 |
| Ch 2. Linear Motion | 9 | 15 | 4.5 | 7.5 |
| Ch 3. Motion in Two or Three Dimensions | 10 | 25 | 5 | 12.5 |
| **Unit 2: Dynamics**  Ch 4. Forces and Motion  I: Newton’s Laws | 15 | 40 | 7.5 | 20 |
| Ch 5. Forces and Motion II: Applications | 10 | 50 | 5 | 25 |
| **Unit 3: Circular Motion & Gravitation**  Ch 6. Circular Motion and Gravitation | 11 | 61 | 5.5 | 30.5 |
| **Unit 4: Energy**  7. Energy and Conservation I: Foundations | 11 | 72 | 5.5 | 36 |
| 8. Energy and Conservation II: Applications and Extensions | 10 | 82 | 5 | 41 |
| **Unit 5: Momentum**  9. Momentum, Collision, & the Center of Mass | 14 | 96 | 7 | 48 |
| **Unit 6: Torque & Rotational Motion**  10. Rotational Motion I: A New Kind of Motion | 7 | 103 | 3.5 | 51.5 |
| 11. Rotational Motion II: Angular Momentum | 6 | 109 | 3 | 54.5 |
| **Unit 7: Simple Harmonic Motion**  12. Oscillations | 8 | 117 | 4 | 58.5 |
| **Unit 8: Mechanical Waves & Sound**  13. Waves | 7 | 124 | 3.5 | 62 |
| **Unit 9: Electric Charge & Electric Force**  14. Electrostatics: Electric Charge and Force | 6 | 130 | 3 | 65 |
| **Unit 10: DC Circuits**  15. DC Circuits: Electric Charge in Motion | 10 | 140 | 5 | 70 |