Dalian Maple Leaf International School

2018–2019

AP Physics 2: Algebra-Based

Teacher: Joyce Huang
Email: joycehuang@mapleleafedu.com
Office : 228
Lab : Girls 109
Tutorials Room : Girls109
Day/Time: TBA

Course Overview:

AP Physics 2: Algebra-Based is an accelerated course. This course is intended to prepare students to take and succeed at the Physics 2 Advanced Placement examination, published by the College Entrance Examination Board. Completion of this course (accompanied by a high AP exam score) may enable students to receive credit for or exemption from an introductory algebra-based Physics course at some colleges and universities. The emphasis in the course is to develop deep understanding of the content and to focus on applying their knowledge through inquiry-based labs.

Student Learning Outcomes/Objectives

By the end of the course, students will be able to…

1. Provide both qualitative and quantitative explanations, reasoning, or justification of physical phenomena, grounded in physics principles and theories
2. Solve problems mathematically-including symbolically
3. Interpret and develop conceptual models
4. Transfer knowledge and analytical skills developed during laboratory experiences to design and describe experiments and analyze data and draw conclusions based on evidence.

Units/Topics to be covered:

- Electrostatics: Electric forces, fields and potentials
- DC and RC Circuits (steady-state only) with capacitors and conductors
- Magnetism and electromagnetic induction
- Fluid Statics and Dynamics
- Thermodynamics:Laws of thermodynamics, ideal gases, and Kinetic Theory
- Physical and Geometric Optics
- Quantum Physics, Atomic and Nuclear Physics

Assessment of Student Learning			
Categories of Evaluation	**Term #1**	**Term #2**	**Exams:**
Tests	10	10	
Quizzes	6	6	
Labs	6	6	
Assignments	3	3	
Midterm	20		
Total Marks (%):	45	25	30

Classroom Expectations

Show up on time with proper uniform
No cheating
Be respectful of everyone
Bring supplies to class (pencils, scientific calculator, laptop, etc)

* *Required Materials: Calculator, note paper, binder, pen, pencils, textbook*

Department Policies

1. Zero-Policy: Give initial zero with student having chance to re-do at a later date will be changed to an I if not completed

2. Reassessment Policy: NO RETESTS but quizzes can be dropped at teacher's discretion.

3. Attendance and Academic Dishonesty will follow the student handbook 2018-19 edition.

Other Information:

Textbook: Physics: principles with applications 6th edition by Douglas C. Giancoli
AP Physics 2 official website: https://apstudent.collegeboard.org/apcourse/ap-physics-2
AP Physics 2 exam will be in May, 2019.
On-line Lab website: http://phet.colorado.edu/ (Make sure you have appropriate app installed on your laptop to run the simulations)