

Physics 12 Course Outline 2024

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Period 1 Room 118



Course Curriculum:

Big Idea 1: Measuring Motion depends on our Frame of Reference

- Frames of reference; special relativity; relative motion with stationary and moving reference frames

Big Idea 2: Forces cause Linear and Circular Motion

- Static equilibrium; uniform circular motion, centripetal force and acceleration; apparent weight; First Peoples knowledge/application of forces in traditional technologies

Big Idea 3: Forces and Energy interactions occur in Feilds

- Gravitational fields; gravitational potential energy; dynamics and energy relationships; electric fields and Coulomb's Law; electric potential energy; electrostatic dynamics; magnetic field and force; electromagnetic induction and applications

Big Idea 4: Momentum is Conserved within a Closed and Isolated system

- Impulse and momentum; conservation in collisions

****Graphical Methods** will be integrated throughout the course**

Expectations & Policies:

Attendance: You are expected to attend class daily, arriving on time and prepared to work

- Pay attention and take notes during class. Complete homework and assignments efficiently – learning requires effort!
- You are responsible for catching up on missed material – not everything will be posted on Teams.
- Ask for help! I am here to help you learn, but I can't help if I don't know where you're struggling.

Homework: I will check homework regularly. A full mark will be given for complete work, ½ mark for partially completed or late homework, and 0 if work is not completed.

Due Dates: You will be given a due date for all assignments/labs/projects, marks will be deducted at my discretion if you hand in something late. I will not accept work that is more than 3 days past its due date (unless other arrangements have been made)

- If you know you can't submit something on time, please speak to me before the due date to make other arrangements. Arrangements are made at my discretion and may not always be available.

Language: Please speak English while in class – more practice means more improvement!

Uniforms: You are expected to adhere to the uniform policy outlined in your Student Handbook.

Honesty: Plagiarism or cheating will NOT be tolerated.

- First offenses will result in a zero grade for everyone involved. Second offenses will be brought to the attention of the principle and will lead to more serious consequences.

Technology: All computer/tablet/cell phone use is at my discretion. I will take away technology that is being used for non-educational reasons.

- Headphones or earbuds are not permitted in class, unless specifically authorized by me.

Classroom Environment: You are expected to treat each other, myself and all other staff/teachers/students with respect and kindness.

Grading:

Course Work	Value
Homework Completion	5%
Quizzes	20%
Assignments/Labs	20%
Projects/Presentations	10%
Unit Tests	20%
Final Exam	25%
Total	100%