

Course Outline

Unit 1: Kinematics and Dynamics

1. 5 big equations for velocity, displacement, acceleration.
2. Projectile motion
3. Newton's Law of motion (friction...)
4. Uniform circular motion (centripetal force...)

Unit 2: Work and Momentum

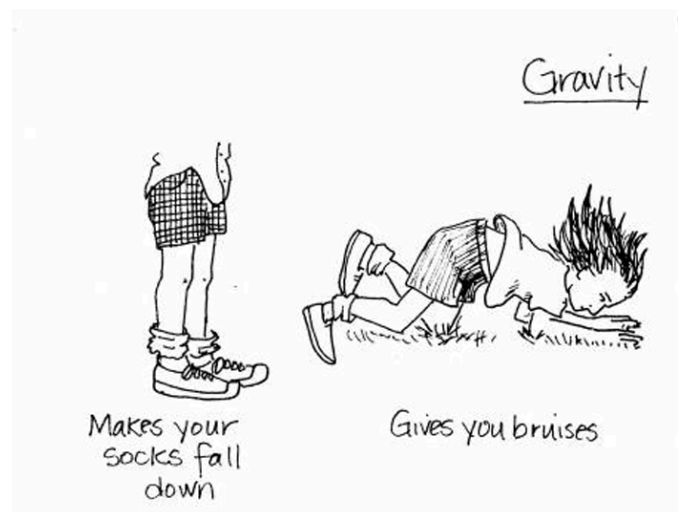
1. Kinetic energy, gravitational potential energy, elastic potential energy
2. Law of conservation of energy
3. Impulse & conservation of momentum in collision

Unit 3: Gravitational, electric, magnetic field

1. Universal gravitation
2. Orbiting velocity & escape velocity
3. Coulomb's Law
4. Electric field and electric potential difference on a single charge or multiple charges
5. Electric potential in parallel plate
6. Magnetic field – right handed rule for a straight conductor & solenoid & moving charge
7. Force on moving conductor
8. Modern DC motor
9. Mass spectrometers
10. Electromagnetic induction

Unit 4: Wave and sound -- **Your Turn: Presentation**

- Tests
- Assignments
- Lab report
- Presentation



Plagiarism: Plagiarism is the act of taking ownership of written material or ideas belonging to someone else, whether knowingly or unknowingly. At Humberside Collegiate Institute, plagiarism is strictly dealt with. A student caught plagiarizing an assignment in this course will receive an automatic mark of zero. A second chance will not be granted. So please be *extremely* careful – even homework copied from another student (although reworded), lab work paraphrased from your partner or the internet without documentation are *all* considered plagiarism. If you are at all concerned or have questions about plagiarism, please ask!

Deadlines: The deadline for assignments and lab reports etc. is at the *beginning* of class. In accordance with the school's policy on assessment and evaluation, any assignment or lab report handed in after the deadline will receive a penalty of 5% per day, up to a maximum of 10%. Lab reports/assignments etc. will not be accepted once they have been handed back. Exceptions for extenuating circumstances may apply at the discretion of the teacher.

Absences

If you know you are going to be absent for a class (appointment, field trip, sports event), then **you must inform the teacher beforehand**. This shows that you are *organized*, conscientious and that you have *initiative*. The sooner you discuss the conflict, the more likely an acceptable alternate arrangement can be made. Failure to do so will jeopardize any consideration.

Missed	Action Student Should Take
Regular Class	Check the website to obtain notes, homework, and/or assignments BEFORE the following class.
Quiz	You must follow-up with the teacher and provide confirmation (parental note or parents call teacher or on an official field trip or team list) that the absence was excused . For most legitimate absences the teacher will offer a make-up quiz at his or her convenience.
Test	MISSING A TEST IS A SERIOUS MATTER. The teacher should be informed as soon as possible and consulted <u>the morning of your return to school</u> . This action, on your part, is very important as it shows initiative and maturity in handling missed work. For a legitimate absence for a test, a parental phone call on the day of your absence explaining why you missed the test must be made. You will then be permitted to write a make-up test at a time arranged by your teacher. An effort will be made to accommodate you but please be aware that tests are time sensitive. Be prepared to write the day you come back.
Lab	You will not receive marks for an experiment that you have NOT performed. In the case of absence, arrangements must be made to make up the experiment as soon as possible. Lab experiments are also time sensitive; as soon as the marked reports are passed back, you can no longer make up the lab and may receive zero for the experiment.