



Physics 20 Course Outline

LINDSAY THURBER COMPREHENSIVE HIGH SCHOOL
SCIENCE DEPARTMENT

TEACHER Mr. R. Mueller

ROOM 1307

COURSE DESCRIPTION

Unit 1: Kinematics

- *Changes* in the position and velocity of objects can be described graphically and mathematically.
- Gravity causes objects to accelerate.
- Vector quantities have both magnitude and direction.
- Projectiles follow parabolic pathways due to constant speed horizontally and acceleration due to gravity acting vertically.

Unit 2: Dynamics

- Newton's laws of motion can be used to explain motion.
- Friction affects motion.
- Gravitational effects extend throughout the universe.

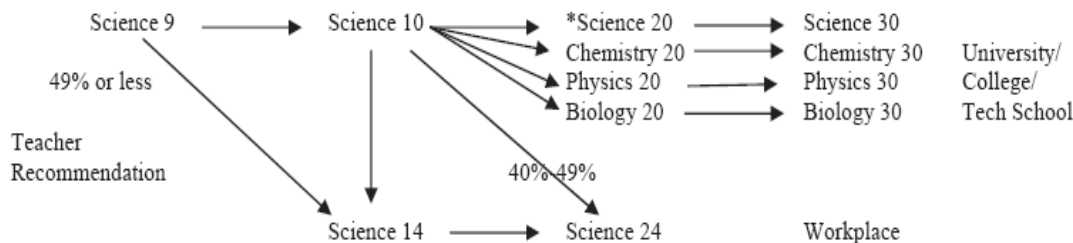
Unit 3: Circular Motion, Work, Energy and Power

- Newton's Laws can explain circular motion.
- Work is a transfer of energy.
- Mechanical energy is conserved in isolated systems.
- Power is the rate of doing work.

Unit 4: Oscillatory Motion and Mechanical Waves

- Many vibrations are forms of simple harmonic motion.
- Mechanical waves transmit energy in a variety of ways.

PREREQUISITE



- A mark of 60% in Science 10 is recommended for entrance to these courses. Students may move from Chemistry 20, Physics 20 or Biology 20 to Science 30.

MATERIALS

GENERAL- Binder, agenda, paper, pen, pencil, eraser, calculator, formula sheet, textbook.

TEXTBOOK *Pearson Physics*, Ackroyd, Anderson, Berg, Martin, McGuire, Sosnowski, Sjojska and Wolfe.

EVALUATION

The purpose of evaluation is to identify the extent of the curricular objectives that you (the learner) have demonstrated and for me (the instructor) to provide constructive and specific feedback that focuses on success and areas for improvement against curricular objectives.

Exams:	50%
Daily Work:	10%
Assignments/Labs:	10%
Final Exam:	30%

During assessment practices there are multiple opportunities to address curricular objectives, if however you (the learner) are absent from class the following will occur:

MISSED OR LATE ASSIGNMENTS, LABS OR DAILY WORK

Addressing the four foundations of the science curricula (STS, Knowledge, Skills, and Attitudes) requires daily science activities that are conducted within or outside the classroom. Feedback for these activities is immediate and address skills/attitudes and cannot be reproduced. If the activity is not complete or absence is unverified a grade of "0" (zero) will be recorded in Gradebook. If the absence is verified an "e" will be recorded in Gradebook.

Attendance is required at laboratory activities. If applicable, and the absence is verified, students will be provided with the data from the laboratory activity and required to complete the laboratory report for the next class day to receive credits. If data is not applicable and the absence is verified the laboratory report will be excused and an "e" will be recorded in Gradebook. If the absence is unverified a mark of "0" (zero) will be recorded in Gradebook.

Late assignments and labs will be accepted in cases of verified absences, and are due immediately upon returning to class. If assignments are late for unacceptable reasons the policy is as follows:

- 1st day late – 10% deduction
- 2nd days late – additional 10% deduction
- 3rd day late – not accepted unless students has made arrangements with teacher

Please discuss *special circumstances* with the teacher to see if an exception to this policy might apply.

MISSED EXAMS

If a student misses an exam, and the absence is verified, the student will be required to write the exam at the first opportunity. The exam will be written at the discretion of the instructor either during class, during lunch, or after school. A mark of "NR" will be recorded in Gradebook until the exam has been completed.

If you cannot write your final exam at the scheduled time, you must apply in writing to Ms. Bevan in order to write the exam on an alternate date. Deadline for semester 1 is Dec. 8, and for semester 2 is May 20.

CLASSROOM/LAB RULES

- It is the student's responsibility to have a parent/guardian verify absences (attendance line 314-2017).
- Arrive on time. When the bell goes, I expect you to be in your desk, with your books opened, ready to start the class. If lateness is unavoidable, please knock, and then wait quietly until I admit you to class.
- No food or drinks in class with the exception of water and healthy snack.
- Phones and mp3 players are to be turned off and out of sight unless permission is given to use them.
- No food or drinks during labs
- You are expected to complete all homework assignments, whether they are taken in for marks or not. Class time will frequently be given to do your assignments. Please stay *on task* during these times. If you finish before the rest of the class, please use the extra time productively.
- Class time should not be used for washroom visits.
- Please do not write on, or in any way deface desks, bulletin boards, etc. Please dispose of trash by carrying, *not throwing*, to the proper receptacle. Recycle Please! Please note the bins for paper and cans/bottles.

STUDENTS AIDS

EMAIL

- To access your email at home use <http://webmail.rdpsd.ab.ca/login>

GRADES

- To access your grades online use <http://elink.rdpsd.ab.ca/>