

GRANDE PRAIRIE REGIONAL COLLEGE
ACADEMIC UPGRADING DEPARTMENT

PHYSICS 0110.....COURSE OUTLINE

- INSTRUCTOR:** Sukhvir Sandhu
- OFFICE:** C204
- OFFICE HOURS:** 11:00 a.m. - 12:00 p.m. M, W, F.
2:30 p.m. - 3:20 p.m. Tuesday, Thursday
other times by appointment
- PHONE:** 539 - 2831 (Office)
- COREQUISITES OR PREREQUISITE:** MA 0110 or MA 0120 placement
respectively.
- TEXT BOOK:** Murphy, Hollon, Zitzewitz and Smoot.
Physics: Principles and Problems
- SUPPLIES:** Plastic cover to hold looseleaf, graph paper,
stapler, pencil, pen, calculator with
trigonometric functions and exponential
functions, and math set.
- COURSE GOALS:** This course is designed to give students an
introduction to the motion of objects. The
student will develop problem-solving skills.
- TEACHING METHOD:** With an emphasis on class participation - most
classes will be of lecture type.
- COURSE CONTENT:**
1. Study S.I. system of units, significant digits and scientific notation. Correct method of setting up and solving problems.
 2. Study significance of slope of lines, direct and inverse variations. Learn how to plot points, and the difference between dependent and independent variables.
 3. Study linear motion of objects if acceleration is zero. Study linear motion of objects with an acceleration. Study the motion of objects falling under gravity.
 4. Study forces and the results of these factors. Study Newton's first, second, and third Law of Motion. Distinguish between mass and weight.
 5. Study trigonometry - define sine, cosine, and tangent of angles as well as Pythagorean Theorem. Distinguish between scalar and vector quantities.

6. Study projectile motion - horizontal and vertical motions. Study centripetal motion; simple harmonic motion.
7. Study Universal Law of Gravitation, Kepler's Law, Newton's Inverse Square Law.
8. Study momentum of objects, conservation of momentum; impulse.
9. Work, power, and simple machines.
10. Study energy, law of conservation of energy, elastic collisions.
11. Study Pascal's & Archimedes' principles. Study properties of fluids and solids.

EVALUATIONS: The final grade will be based on four unit tests, labs, hand-in assignments, midterm exam, surprise quizzes, and the final examination. Surprise quizzes may be given without advance warning.

Assignments:	24%
Labs:	12%
Unit Tests and Quizzes:	16%
Mid-term Exam:	10%
Final Exam:	38%
Total	100%

TESTS AND EXAMS: There will be a test about every three weeks or so, for a total of four (50 min) tests for the course(see course schedule for dates. Quizzes (5 - 10 min) will be given at intervals between tests. Absence from tests, quizzes, or exams will result in a mark of zero for that test or exam unless a previous arrangement is made with the instructor for medical or other legitimate reason. College team members must notify the instructor prior to the test date if they are to be away.

LABS: Attendance is compulsory for all labs. A missed lab will result in a mark of 0 for that test. Make-up labs cannot be guaranteed.

GRANDE PRAIRIE REGIONAL COLLEGE GRADING PROCEDURE

9-POINT GRADE	PERCENTAGE EQUIVALENCE	DESIGNATION
9	90-100	
8	80-89	Excellent
7	72-79	
6	65-71	Good
5	57-64	
4	50-56	Pass
3	45-49	Fail
2	26-44	
1	0-25	

Any student wishing to withdraw from the course must do so officially before March 3 in order to avoid receiving a failing grade.

Toral 67 working days.

STUDENT RESPONSIBILITIES:

Here are some of your basic responsibilities as a student, from the GPRC.

-arrive on time and remain for the duration of scheduled classes or activities.

(Regular attendance is expected, and attendance is taken. Students who miss more than 20% of classes may be barred from writing the final exam. Classes will start on time, so please arrive a few minutes early.) Attendance will be taken in the beginning of the class.

-respect instructor's right to expect ... assignments to be submitted at the time specified, and establish penalties for failure to comply with deadlines.

(failure to submit assignments and reports on time will result in late penalties.)

-respect instructor's right to expect assignments to be neatly presented.

(submit lab reports and any assignments following the required format exactly.)

-respect an instructor's right to expect that any work submitted by the student is original, and to know what plagiarism and other forms of cheating are.

-repect an instructor's right to appropriate classroom behaviour ... the instructor has the right to exclude a student from learning activities should a student be disruptive.

-write tests and examinations at times scheduled by instructor.

-assume responsibility for course work and assignments missed.