



PHY 100 – Introductory Physics

Science Department

Semester: Fall & Spring 2009

Catalog Course Description: This is a course in general physics including introductory principles of physics for higher level physics study. Lecture (3.0). (This course does not meet the requirements for an associate degree, but may meet requirements for a diploma or certificate.)

Prerequisite(s): None

Credit Hours: 3

Instructor: _____ (request in class)

Office: Beltline Campus, Lindau Engineering Technology (LET) 421

Telephone: 803-738-7689 (Beltline Math & Science Office)

E-mail: _____ (request in class)

Campus Mailbox: LET 421

FAX: 803-790-7530

Class Schedule: _____ (get this from your registration form)

Office Hours: Call or e-mail for an appointment

Textbook(s): *Conceptual Physics*, P. Hewitt, 10th Ed.

Additional Materials: Scientific calculator and a personal e-mail address and computer access.

Departmental Website: <http://www.midlandstech.edu/science>

Departmental Assistant: Jan Oliver (oliverj@midlandstech.edu)

Department Chair: Dr. Geraelyne Lopez-de-Victoria (lopezgj@midlandstech.edu)

General Education Core Competency Statement: This course is designed to meet the college's general education core competency for Scientific Reasoning.

Course Objectives: Upon completion of this course the student will be able to have a working knowledge of conceptual, introductory physics.

Course Outcomes and Competencies:

Intended Course Outcome: Students will understand and be able to use scientific reasoning and principles through the study of basic conceptual physics. To promote an interest in physics. To enable the student to more thoroughly understand the concepts of physics in general.

Course Competency (Performance Measure): Students will demonstrate their understanding and ability to use scientific reasoning and principles by answering examination questions based on the learning objectives:

1. motion of an object or objects using kinematics and dynamics.
2. interacting physical systems using the laws of conservation of energy and momentum.
3. the atomic nature of matter and its physical phases.
4. the effects of temperature on an object or objects and resulting heat flow.

Measurement Instrument: Students will complete a set embedded examination questions prepared by faculty based on the course learning objectives.

Course Attendance: Students will be allowed to miss twice the number of times a lecture or laboratory section meets per week.

If the lecture meets 3 times per week, 6 absences are allowed.

If the lecture meets 2 times per week, 4 absences are allowed.

If the laboratory meets once a week, 2 absences are allowed.

If the student misses more than 10 minutes of class by either arriving late or leaving early, then the student will be counted as absent, missing fewer than 10 minutes is a tardy. Three tardies count as one absence.

Students adding courses after classes begin are responsible for work covered from the first day of class. All classes missed count as absences.

Please note the following: You are responsible for all material and announcements presented, whether you are present or absent.

Withdrawal: Students may withdraw from a course anytime before the last week of classes (see the current semester college calendar, available on the MTC web site, for official dates). Students who wish to withdraw from a course must submit a withdrawal form to records. The date of withdrawal may affect a number of things, including financial aid/ tuition reimbursement, tuition refunds, and course grades. The effective date of withdrawal depends upon the date the withdrawal form is submitted to records. It is the student's responsibility to be aware of relevant dates, to make an informed decision, and if necessary, to submit withdrawal forms in a timely fashion.

For questions regarding the effect of withdrawal on financial aid or tuition reimbursement students should contact Student Financial Services. Deadlines for tuition refunds may be found on the current semester college calendar, available on the MTC web site, or by calling the cashier's office.

Students who withdraw before midterm will receive a grade of W. Students who withdraw after midterm and have an overall class average of 60% or greater will receive a grade of W. Students who withdraw after midterm and have an overall class average below 60% will receive a grade of WF, which is calculated as an F. Grades of W or WF are also assigned when a student exceeds the maximum number of absences allowed in a course. These grades are entered on the final grade roster along with the last date of attendance (LDA). Students should understand that the LDA does not constitute an effective date of withdrawal and should not consider a decision to stop attending class to be equivalent to withdrawal.

Course Grading and Scale: The final grade for this course will be determined as follows:

Lecture: Class Tests 70%, Homework or Assignments 20% and Class Participation 10%

A (90-100)	B (80-89)	C (70-79)	D (60-69)	F (<60)
------------	-----------	-----------	-----------	---------

A grade of zero will be recorded for any announced exam (or assignment), which is missed.

There are no make-up exams for any reason; however, the cumulative final exam will count twice in place of the missed exam. If no exam is missed, then the final may count twice in place a lower exam score.

Please Note: Should change become necessary, the instructor reserves the right to adjust the requirements, pace, or scheduling of this course. Any change will be announced in class before it becomes effective.

The Science Department Chair, Coordinators, and faculty are here to help you. If you are having any problems in your classes, please contact the person who can help you. If we don't know you are having problems, we can't help you. Gerry Lopez is Department Chair and can be reached at 822-3443; Greg Mancini is Beltline Science Coordinator and can be reached at 738-7660. Contact Jan Oliver at 822-3548 for information regarding the Airport Science Coordinator.

Tests and Final Exam: Class tests may be multiple choice, identification, definitions, short answers, essay and/or a mixture of these formats. I will not be any more precise at this time, because the emphasis will be on learning the concepts and nature of astronomy - not on the nature of testing.

There will be 5 class tests and a final exam. Test dates and times are fixed and will not be moved or altered unless there is some natural disaster or similar event. Please do not plan on asking later to change dates or times because of a personal conflict - because these dates are fixed, and there are no make-up tests.

PHY 100 Lecture Information:

Week	Weekly Readings
1	Ch. 2. Newton's First Law of Motion: Inertia
2	Ch. 3. Linear Motion
3	Ch. 4. Newton's Second Law of Motion: Force and Acceleration Test #1 (Ch. 2, 3)
4	Ch. 5. Newton's Third Law of Motion: Action and Reaction
5	Ch. 6. Momentum
6	Ch. 7. Energy Test #2 (Ch. 4, 5, 6)
7	Ch. 8. Rotational Motion
8	Ch. 9. Gravity
9	Ch. 10. Projectile and Satellite Motion Test #3 (Ch. 7, 8, 9)
10	Ch. 11. Atomic Nature of Matter
11	Ch. 12. Solids & Ch. 13. Liquids
12	Ch. 14. Gases and Plasmas Test #4 (Ch. 10, 11, 12, 13)
13	Ch. 15. Temperature, Heat and Expansion
14	Review Test #5 (Ch. 14, 15)
15	Final Exam (Cumulative)

Exact test dates will be announced in class.

College Policies

Students are expected to read the student handbook and abide by its policies. Copies of the handbook may be obtained at various locations on campus and is located on the web: <http://www.midlandstech.edu/planner/>

Academic Dishonesty: The Student Code addresses what constitutes academic dishonesty. All forms of dishonesty including, but not limited to, cheating on tests, plagiarism, collusion and falsification, will call for discipline.

Cheating on Tests includes:

- Copying from another student's paper.
- Using materials during a test not authorized by the person giving the test.
- Collaborating with any other person during a test without permission.
- Knowingly obtaining, using, buying, selling, transporting, or soliciting in whole or part the contents of any un-administered test.
- Bribing any other person to obtain information about tests.
- Substituting for another student, or permitting another student to substitute for oneself.

Plagiarism is the appropriation of any other person's work and unacknowledged incorporation of that work in one's own work offered for credit.

Campus Emergency Protocol: Students and employees are asked to report safety concerns or suspicious activities to Campus Security at 7199 (on campus) or 738-7199 (cell phone or off campus). In the event of an emergency, employees and/or students should immediately call Campus Security or local 911. If an emergency occurs, the college will use a variety of methods to communicate additional information and instructions including the MTC Information Centers, campus loud speakers, MTC Alerts! (http://www.midlandstech.edu/Phone_Alert.htm), voice mail, email, college Intranet, and the MTC website homepage.

Inclement Weather Policy: In the event weather conditions or other emergencies cause the closing or a delayed start of Midlands Technical College, announcements will be made over local radio and TV stations, on the MTC Web site, and on the college's information line (803-738-8234). Notices will be sent to students via Campus Cruiser Mail when applicable. Separate announcements may be made for day and evening classes as weather conditions change during the day.

If the college closing or reopening means that there is at least 30 minutes of a class remaining, plan to attend that class. For example, if the college opens at 10:00 a.m. in TTH, classes that normally meet at 8:00 a.m. will not meet, but classes beginning at 9:30 a.m. will meet. If the college closes at 8:00 p.m., 6:00 p.m. classes will meet for their regular time, but 7:35 p.m. classes will not meet since there are fewer than 30 minutes remaining in class.

Student E-Mail Accounts: All MTC students are assigned a college e-mail account upon admission to the college. This account is called "Campus Cruiser Mail." Campus Cruiser Mail is the primary mode by which the college communicates with students. Students are responsible for checking their college e-mail on a regular basis for important information and announcements about registration, financial aid, cancelled classes, emergency announcements and other notices. Students can use their college e-mail accounts to communicate with faculty, staff, fellow students, and others, in support of their educational pursuits. In addition to e-mail, students will also have access to maintaining personal calendars and "tasks lists" through their Campus Cruiser e-mail account.

Student Evaluation of Instruction: Students have the opportunity to evaluate this course. The confidential evaluation process is conducted through MTC Online using the individual student's username and password. Announcements will be made during the term concerning how and when to complete the online evaluation. Students are encouraged to participate in this process.

Students Requiring Special Accommodations: If special accommodations are needed for a student with a disability, the student should go to Counseling Services on Beltline or Airport Campus for assistance. Documentation regarding a specific disability is required in order for special arrangements to be made. Confidentiality of information received will be maintained.

SCIENCE DEPARTMENT CODE OF CONDUCT

Student rights and responsibilities are outlined in the Student Handbook. We are extremely proud of the quality of students in the Science Department; however, there have been occasions where disciplinary action is necessary to prevent disruptive and dishonest behavior. The following items are specific violations and consequences supported by the Science Department. Your instructor will circulate a form for your signature stating that you understand the Science Department Course Syllabus, which includes this document.

1. Any student who exhibits behavior that is disruptive to the learning process such as talking, discourtesy to faculty or fellow students to include obscene language or gestures, or uncooperative actions will be asked to leave the classroom. The student will be counted absent for this class. Depending upon the nature of the offense or if it occurs during an test the instructor may require that the student see the Science Coordinator, Chair of the Science Department, or the Director of Campus Life before returning to class. Campus Security will be called for any threatening or violent behavior.

2. Beepers, cell phones, personal stereos, and similar devices are not permitted in class. Permission must be obtained from the Science Coordinator or Instructor for students who are emergency personnel or where there are extenuating circumstances. Campus Security can locate a student and will interrupt a class if there is a situation that needs immediate attention

3. Any student proven to have engaged in academic dishonesty will be given a grade of zero on the test or assignment. This includes, but is not limited to, giving or receiving information during an test, use of unauthorized materials during an test or assignment, plagiarism, or changing answers after a grade has been assigned. An instructor must have reasonable proof that dishonesty has occurred. Until an incident is verified, the student will be assigned a grade of "I" for the work. Witnesses of cheating should report this immediately to the instructor. The grade will be discussed confidentially with the student. If the student denies that academic dishonesty occurred, the Chair of the Science Department or Science Coordinator will meet with the instructor and student. The instructor will be supported if departmental guidelines for handling cheating incidences were followed. However, the student is referred to the Student Handbook for the policy on filing a grievance. In any incident involving academic dishonesty, a report will be filed with the Director of Campus Life.

4. Students with complaints about instructors should follow the appropriate chain of command as outlined in the "Science Department Conflict Resolution" form. A form can be obtained from the Science Department. Signatures must be obtained at each level before the complaint will be validated. There may be some circumstances where the first contact is with the Science Coordinator who will discuss the problem with the instructor. All efforts possible will be made to resolve conflicts internally. However students should remember that matters can also be handled through the Academic Appeal/Grievance process detailed in the Student Handbook.