



ECE 245 - Object-Oriented Programming Techniques

Information Systems Technology Department

Semester:

Catalog Course Description:	This course is a study of advanced object-oriented concepts and techniques, multiple inheritance, memory management, operator overloading, polymorphism, and performance issues. .
Prerequisite(s):	EGR 283
Credit Hours:	3 hours
Departmental Website:	http://www.midlandstech.com/edu/ed/ism/cpt/
Telephone:	(803)738-7776
FAX:	(803)790-7513
E-mail:	ist@midlandstech.edu
Campus Mailbox:	RH 129
Departmental Assistant:	Kristine Newton (newtonk@midlandstech.edu)
Department Chair:	Marian Nurse (nursem@midlandstech.edu)
Textbook(s):	Brian W. Kernighan and Dennis M. Ritchie, <u><i>C Programming Language, 2nd edition</i></u> , Prentice Hall, Englewood Cliffs, NJ, 1998. and Harvey M. Deitel and Paul J. Deitel, <u><i>C++: How to Program, 4th edition</i></u> , Prentice Hall, Englewood Cliffs, NJ, 2002.

Course Objectives: Upon completion of this course the student will be able to:

1. Demonstrate mastery of object oriented programming concepts: inheritance, polymorphism, and operator overloading.
2. Demonstrate mastery of pointers, iterators, memory management including object creation and destruction, and parameter passing in C++ and Java.
3. Develop C++ code in a Unix Environment utilizing the C preprocessor, the debugger (gdb), make, source code revision systems (sccs), utilities such as those for transferring files to and from Unix and Windows.
4. Demonstrate mastery of template functions and classes; understand underlying implementation of major containers in the STL.
5. Develop object oriented models using UML

Course Outcomes and Competencies:

Intended Course Outcome:

Students will be able to use inheritance, polymorphism, operator overloading, pointers, iterators, constructors, destructors, functions, classes and UM in C++ programming..

Course Competency:

Students will demonstrate an understanding of inheritance, polymorphism, operator overloading, pointers, iterators, constructors, destructors, functions, classes and UML

Performance Measurement Instrument:

Embedded questions. At least 80% of students will achieve a score of 75% or greater on the embedded questions.

Course Attendance:

Students may not miss more than 15% of scheduled classes, regardless of the reason for the absence. After exceeding this limit, a student will be withdrawn from the class by the instructor. Attendance will be taken at the beginning of the class period. Students not answering to the roll call at that time will be marked absent. Students arriving late may check-in with the instructor after class in order to be marked tardy. Three marks of tardy will count as one absence. Students are required to remain in class until class is dismissed, and will otherwise be marked absent, unless prior arrangements are made in advance with the instructor. Attendance records will not be changed retroactively after the scheduled class meeting.

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

Withdrawal: Should the maximum allowable absences be exceeded prior to midterm, a "W" will be submitted to the registrar to be recorded on the student's transcript. Should the maximum allowable absences be exceeded after midterm, a "W" will be submitted to the registrar if the student was passing the course at the time of withdrawal OR a "WF" will be submitted if the student was failing the course at the time of withdrawal.

Grading Scale:

90-100	A	Superior Work
80-89	B	Good Work
70-79	C	Average Work
60-69	D	Poor Work
0-59	F	Unsatisfactory Work



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.



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