CIS 414

Advanced Object-Oriented Programming Spring 2007 Syllabus

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Office Hours: MW 10:00-10:45am, 1:30-3:45pm, 5:00-6:00pm

TR 10:00-10:45am, 3:00-3:45pm

or by appointment

Course Description

Development of business applications using object-oriented design methodology; use of functions, classes, encapsulation, and inheritance.

Course Objectives

The purpose of this course is to allow the student to develop the following knowledge, skills, and abilities:

Knowledge

- Understand the basic principles of structured programming logic
- Understand and implement flow of control structures in programs
- Understand the compilation, linking, and execution process
- Understand and implement advanced C++ data types and library functions
- Understand functions, parameter passing and scope rules and recursion
- Understand dynamic memory allocation

Skills

- Able to use VisualStudio to develop properly written applications
 - Know how to compile and run C++ programs
 - o Know the syntax for writing C++ source code
 - o Know how to implement various methods of data input and output

Abilities

- Capable of developing advanced information systems (screens, forms, and reports) to solve business problems
- Capable of pursuing advanced study of information systems development

Prerequisites

Successful completion of CIS 310, CIS 314

Required Texts

Programming and Problem Solving with C++ (4th edition). Nell Dale and Chip Weems. Jones and Bartlett, 2005 (ISBN 0-7637-0798-8)

Required Software

Microsoft Visio Microsoft Visual Studio SSH Secure Shell

Classroom Policies

To ensure that all students are able to participate and benefit fully from classroom lectures and activities and to promote focus and prevent distraction, the following policies will be strictly enforced in the classrooms and labs:

- 1) Students may not use communications devices (e.g., cell-phones, pagers, text-messaging devices) in the classroom/lab. All such devices must be off or in silent-mode during class.
- 2) Children are not allowed in the classroom/lab.
- 3) Students should be on time for class and should not leave class before the end of class. If it is necessary to be late or leave early, please try not to disrupt the class unnecessarily.
- 4) Students should keep the classroom/lab neat and clean. Any trash (e.g., newspapers) should be placed in a trash receptacle, not left in the classroom.

Students with Disabilities

Students who have a disability that may require assistance or accommodation, or students who have questions related to any accommodations for testing, note takers, readers, etc., should speak with the course instructor as soon as possible and contact Student Disability Services at 662-846-4690 or send e-mail to <u>Dr. Richard Houston</u> with questions about such services. Disability Services is located in the Reily Student Health Center. Further information can be found at http://www.deltastate.edu/pages/978.asp.

Students with a disability who require accommodations should seek assistance at the Office of Student Disability Services in a timely manner, usually prior to the start of classes or as soon as a disability becomes known. Students with disabilities are required to request academic accommodations each semester they are enrolled.

When direct classroom accommodations are requested, the Office of Student Disability Services will provide the student with an Instructor Notification of Classroom Accommodations Form verifying that the student has a disability and stating the assigned reasonable accommodations. The student is responsible for requesting the form each semester and delivering it to all instructors. Instructors will be expected to assist with the provision of accommodations when reasonable and necessary. *Instructors are not expected to compromise essential elements of a course or evaluation standards*.

Standards of Honesty

Cheating and plagiarism are not tolerated. If it is established that a violation has occurred, instructors determine the penalty as outlined in their course syllabi. The usual **minimum** [emphasis added] penalty for a first offense involves a grade of zero on the test, examination, or paper in question. A second offense in a subsequent semester will be reviewed for more stringent action and will usually result in suspension. Any additional offenses will usually result in expulsion from the university. All plagiarism offenses should be reported to the student's advisor, the division/department chair, the dean, and the Office of Academic Affairs. The latter shall maintain records to track multiple offenses.

- Bulletin of Delta State University, 2006-2007

IMPORTANT NOTE: All homework assignments, quizzes, tests, and other exercises are to be considered individual assignments unless the instructor specifically identifies an assignment as a group assignment. Written assignments will be submitted to TurnItIn.com to verify the originality of the work.

The academic discipline policy of Delta State University will be strictly followed in this course. Violation of the policy by any type of academic misconduct will result in the following sanctions:

<u>1st offense:</u> Grade of zero for the assignment and reduction of the course grade by one letter grade

<u>2nd offense:</u> Grade of 'F' for the course and recommendation to Provost that the student be suspended.

Appropriate Use Policy

All members of the Delta State University community must use electronic communications in a responsible manner. The University may restrict the use of its computers and network systems for electronic communications, in response to complaints presenting evidence of violations of other university policies or codes, or state or federal laws. Specifically, the university reserves the right to limit access to its networks through university-owned or other computers, and to remove or limit access to material posted on university-owned computers. The university reserves the right to limit access to its networks through university-owned or other computers, and to remove or limit access to material posted on university-owned computers.

- Appropriate Use Policy, DSU Policy Manual

The appropriate use policy of Delta State University will be strictly followed in this course. Violation of the policy will result in a grade of F in the course. The student should refer to the DSU Policy Manual for general definitions of appropriate use.

Attendance

Regular class attendance is expected. Regular class attendance will contribute to success in the class. Please do your best to be in class and on time. If it is necessary to be late or leave early, please try not to disrupt the class unnecessarily.

Course Requirements

Exams: There will be three exams during this semester and a final exam. **There are NO make-up exams.** A student missing an exam due to a VERIFIED excused absence will be allowed to count the final exam grade score for the missed exam (i.e., as 40% of his/her grade).

Homework: Completed files should be submitted to the appropriate dropbox on WebCT. **Each project must be submitted by 11:00PM on the due date indicated**. After that time, the dropbox will no longer be available, and students who have not submitted the project will receive a zero for that homework assignment.

Grading Policy

Homework	30%
Exam I	15%
Exam II	15%
Exam III	15%
Exam IV (Comprehensive Final Exam)	25%

Grading Scale

<u>Score</u>	<u>Grade</u>	Quality of Work	Real World Equivalent
90 - 100%	A	Outstanding	Merits a promotion and raise
80 - 89%	В	Good	Merits a raise
70 - 79%	C	Adequate	Merits retaining job
60 - 69%	D	Poor	Merits reprimand
59 and below	F	Unacceptable	Merits losing job