 **CIS 2541 Introduction to C++ Programming Language**	
INSTRUCTOR:	**Mohammad Morovati**
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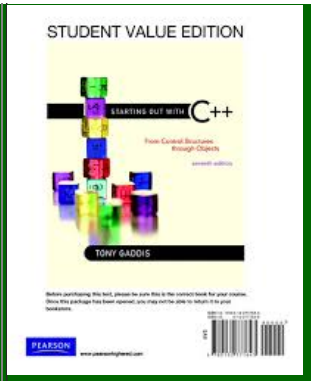
OFFICE HOURS:	• **Mon: 5:00 – 6:00 PM** • **Tue: 5:00 – 6:00 PM** • **Wed: 5:00 – 6:00 PM** • **Thu: 5:60 – 6:00 PM** • **Fri: 6:00 – 9:00 PM On-Line**
CLASS:	**M/W 6:00 - 9:50 PM BIC 1514 6/10/2013 - 7/31/2013**
COURSE NAME:	**CIS2541 – Introduction to C++ Programming**
CREDIT HOURS:	**4.0 Credit Hours**
TEXTBOOK (REQUIRED):	**Starting Out with C++: From Control Structures through Objects; 7th Ed. Gaddis, Tony - Pearson Addison Wesley Publishing, ISBN:978-0-321-54588-6**

	
CLASS MATERIALS:	***Memory Stick***
PREREQUISITES:	***CIS1400 or consent of instructor***

COURSE DESCRIPTION:

Introduction to C++ Programming, and object oriented programming language. Includes C++ data types, operators, expressions, control structure, functions, arrays, pointers, strings, Abstract Data Types (ADTs), classes, inheritance, polymorphism, virtual functions, and file input/output. Emphasis on building the foundation to understand the capabilities of the C++ programming language and the skills to develop practical procedural and object oriented applications.

COURSE OBJECTIVES:

Upon successful completion of this course the student should be able to do the following:

1. ***Explain the process of compiling and executing C++ language programs.***
2. ***Describe C++ language data types, operators expressions, and flow control structures.***
3. ***Demonstrate the use of C++ functions, arrays, strings, and classes.***
4. ***Demonstrate the ability to develop interactive procedural and object oriented applications.***
5. ***Explain the concept of inheritance, polymorphism, and virtual functions.***
6. ***Describe file input and output.***

TOPICAL OUTLINE:

1. ***The C++ language - its development and applications***
2. ***Compiling and executing a program***
3. ***The format of a C++ program***
4. ***C++ function definitions***
5. ***Data types and structures***
6. ***Storage classes***
7. ***Operators and expressions***
8. ***Control structures***
9. ***Arrays and pointers***
10. ***Input/Output and Library functions***
11. ***Classes and Objects***
12. ***OOP concepts***

13. Operating System Interfaces

COURSE REQUIREMENTS:

Participation and Timely Completion of Assignments: Active participation is essential if students are to receive maximum benefit from this class. Participation requires preparation including completion of reading and other assignments by the due dates. Assignments are due at the scheduled times, assignments are not accepted after the due dates.

MAKE-UP POLICY:

If you cannot submit the assignment on scheduled date, It needs to be scheduled in advance so that arrangements are made. No Late Assignment and Labs are accepted, without prior arrangements, no make up exams and quizzes are allowed.

ACADEMIC HONESTY:

Any violations of College of DuPage policies regarding academic honesty and/or integrity will be referred automatically to the appropriate College authorities for disposition.

GENERAL NOTE:

You must abide by policies of College of DuPage contained in the catalog and other College materials. If you are having course/College related problems, please feel free to talk to me so that we can resolve them to your satisfaction and benefit.

HOMEWORK:

It is not possible to pass this class without investing time in both reading the text, completing the work illustrated in the book, and completing the assignment. Please make sure you have sufficient time to spend on the work this term. I be available during my office hours to answer your questions, telephone calls, and e-mails. If you need additional help make
arrangements so you receive the maximum benefits. Assignments are not accepted through the e-mail.

Withdrawal Procedure:

Effective Fall 2012, the final day for a student to withdraw from any course will be equal to 75% of the respective academic session. For 16-week courses this fall, the last day to officially withdraw is November 13, 2012. These dates are included in the academic calendar published on our website at http://www.cod.edu/academics/pdf/fy12cal.pdf

Effective Fall 2012, a student may drop any course for any reason up to the last day to officially withdraw, and will receive a grade of W on their transcript. After the 75% point, no withdrawals will be allowed except for special cases such as health or family emergencies, call to active duty, or sudden, verified illness. These students are required to provide to the Registration Office appropriate documentation for all requests for late withdrawal.

Students who drop after the 75% point without an approved Petition for Late Withdrawal from the Registration Office will receive a grade of F if they have not made special arrangements with the faculty to receive an Incomplete (I) grade. Students will not be eligible to petition for late withdrawal after the designated final examination time in 16- and 12-week classes, or after the last class meeting in 10-week, 8-week, or 5- week classes.

RULES:

In addition to the rules outlined in the syllabus, it is the student's responsibility to understand and abide by all COD academic policies as stated in the current COD catalog.

Incomplete:

No incompletes will be given unless a medical emergency exists. All assignments must be turned in as stated. Method of Evaluating Students Final Grades will be assigned as follows:

Assignments and Grades			
Test/Quiz/Lab	Points	Total Points	Grade
Exam #1	100	490 or higher	A
Exam #2	100	440 - 489	B
Exam #3	100	390 - 439	C
Programming Assignments (12)	250	340 - 389	D
Total	550	Below 339	F

Topical Outline Schedule

Week	Reading Assignments	Quiz/Test	Assignments
6/10	- Introduction - Chapter 1 - Introduction to Computers and programming		
6/12	- Chapter 2 - Introduction to C++ - Chapter 3 - Expressions and Interactivity		Assignment #1
6/17	- Chapter 4 - Making Decisions		Assignment #2
6/19	- Chapter 5 - Loops and Files		
6/24	- Chapter 6 - Functions	**Exam #1**	Assignment #3
6/26	- Chapter 7 - Methods: Arrays		
7/1	- Chapter 8 - Searching and Sorting Arrays		Assignment #4
7/3	- Chapter 9 - Pointers		
7/8	- Chapter 10 - Characters, C_Strings, and more About the string Class		Assignment #5
			Assignment

7/10	Chapter 11 - Structured Data	Exam #2	#6 Assignment #7
7/15	Chapter 12 - Advanced File Operations		Assignment #8 Assignment #9
7/17	Chapter 13 - Introduction to Classes		Assignment #10
7/22	Chapter 14 - More About Classes		
7/24	Chapter 15 - Inheritance, Polymorphism, and Virtual Functions		Assignment #11
7/29	Continue with Inheritance, Polymorphism, and Virtual Functions		
7/31	Last 2 Assignments are presented in the class	Exam #3	Assignment #12
NOTE:This schedule may be modified and or augmented during the course of the semester as situation demands. It is the responsibility of the student to participate in the classes/activities in order to keep up with the modifications of requirements as they occur. All homework and labs must be turned in before or on due date, No late work will be accepted after the due date before prior approval.			

Following criteria will be used to evaluate the assignments:

Documentations (25%):

- *Flow Charts and or UML diagram*
- *Valid Comments*
- *Correct indentations and use of white spaces*

Executable Code (50%):

- *Must be able to run the code without error*
- *Must support the basic features specified in program requirements*

Overall Design (25%):

- *Class design and or function design*
- *Additional features*
- *Data validation*
- *Look and feel of the user Interface*
- *Efficiency*