

COSC 1437 PROGRAMMING FUNDAMENTALS II: C++

CRN: 20966

Replaces ITSE 2321

Prerequisite: COSC 1436 or ITSE 1302, ENGL 1301 and MATH 1314

Credit: 4 (3 lecture, 3 lab)

Review of control structures and data types with emphasis on structured data types. Applies the object-oriented programming paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design. Includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering.

Instructor: James Sasitorn [james@sasitorn.com]

Website: jsasitorn.com/hcc

Textbook:

Starting out with C++ Early Objects 5th Edition (formerly "Alternate Version") w/codemate

Author: Gaddis, Walters & Muganda

ISBN: Bundle 0321538854

Publisher: Addison-Wesley

Campus and Room: Central, JDB212. M/W 10-1

Office Hours (by appointment): M/W after class (Central)

Other Required Materials: USB Flash Drive

Detailed Course Evaluation:

Course Grading		Grading Scale	
<i>Exam I</i>	20%	A	90--100
<i>Exam II</i>	20%	B	80--89
<i>Exam III</i>	20%	C	70--79
<i>Projects, class-works</i>	30%, 10%	D	60--69
		F	0--59

Late Project Policy: A project that is over due will have a ten point penalty per a day.

Make-up Exam Policy: No makeup test

No Internet Browsing during lecture unless otherwise it is instructed!

Course Requirements and Expectations:

There will be 3 tests including final, NO MAKEUP TEST!!

There will be three 3 projects, about 10 lab assignments.

All projects and assignments are due on the second session of a class if the class is held twice a week

Computer Science Technology Department
COSC 1437 Programming Fundamentals II: C++

Course Calendar			
Session	WK	Topics	Reading
	wk1	Orientation & Overview I/O, Data types, String Project I assignment	Chapter 1, 2
		Class closed	
	wk2	Overview: Conditional Stmt Loops Functions	Chapter 3, 4, 5, 6
	wk3	Multi dimensional Arrays	Chapter 8
	wk4	Introduction to C++ Pointers (Part I)	Chapter 10
	wk5	Project I Due, Project II assignment Exam I	
	wk6	C++ Pointers (Part II)	Chapter 10
	wk7	Introduction to struct Introduction to Classes Defining classes Objects	Chapter 7
	wk8	Classes in detail Class variables, Instance variables Class methods, Instance functions Inline functions	Chapter 11
	wk9	Class relationship: Inheritance Introduction to inheritance Methods overriding Methods overloading Variable hiding, ...	Chapter 11, 12
	wk10	Class relationship: Polymorphism Introduction to Polymorphism Type Casting Method calls binding, ...	Chapter 15
	wk11	Project II Due, Project III Assignment Exam II	
	wk12	Operators Overloading	Chapter 12
	wk13	Generic Programming	Chapter 16
	wk14	C++ Standard Template Library (STL) Collection classes	
	wk15	Project III Due Final review	Review
	wk16	Exam III (Final)	