# CENTER FOR INNOVATIVE TECHNOLOGIES MASTER COURSE DOCUMENT

## **SET 151 C Programming 1**

**Course Description:** An introduction to the C and C++ computer programming languages. Topics include: decision statements, loops, functions, arrays, strings, pointers, and simple classes.

Prerequisites(s): IT 101 Corequisite(s): No corequisite

Lecture Hours: 2	Lab Hours: 3	O Hours: 3 Credit Hours: 3		: 3
Lab Fee: 105	Supplemental Fee: 0		Purpose:	
☐ Transfer Assurance Guide C	ourse (TAG)	☐ Transfer Module	Course (TM)	
Course Format: Lec/Lab		Grading: A/B/C/	D/F/I	
Delivery Method: □ Web	□ Hybrid X	Classroom		
Semesters Offered: □ Fall	X Spring X	Summer		
Course Primary Text:				
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Title: C Primer Plus				Edition: 5th
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Title: C Primer Plus				Edition: 5th
Title: C Primer Plus  Author(s): Stephen Prata				Edition: 5th

#### **Course Outcomes:**

1	Know and understand the syntax of the C programming language.
2	Know and understand how to use decision statements.
3	Know and understand how to use loops.
4	Know and understand how to make and use procedures.
5	Know and understand how make, use and manipulate strings (character arrays).
6	Know and understand how to pass parameters by value and by reference with pointers.
7	Know and understand how to pointers.
8	Know and understand how to dynamically allocate memory.

### **Course Topics:**

Week 1	Introduction Visual Studio. The main procedure, variables, constants, output with printf and input with scanf.
Week 2	Loops and decision statements.
Week 3	Lab.

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Week 4	Procedure and parameters.
Week 5	Procedure and parameters continued. Test #1.
Week 6	Arrays of numbers.
Week 7	Strings (character arrays) and string functions.
Week 8	Lab.
Week 9	Strings (character arrays) and string functions continued. Structures.
Week 10	Lab. Test #2.
Week 11	Lab.
Week 12	Pointers and dynamic memory allocation.
Week 13	Lab.
Week 14	Strings with pointers and dynamic memory allocation.
Week 15	Lab. Test #3.

### **Methods of Evaluation/Assessment**

Test#1	15%	
Test#2	15%	
Test#3	15%	
Quizzes	10%	
Homework	45%	

Course Keeper: Robert Nields Date Completed: 4/1/2019