

**THREE RIVERS COMMUNITY COLLEGE  
COURSE OUTLINE**

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Intro to Programming  
Prof. George Volkov  
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CSC K108  
Spring 2009  
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Course Description: This course provides a comprehensive introduction to a high level computer programming language. The language currently being used is C++. The student will learn to design, develop, and implement programs to solve various data processing problems. Topics covered include control structures, functions and parameter passing, one and two dimensional arrays, file I/O, structures, and an introduction to classes. In the lab, the student will use the computer to create and run programs to solve problems discussed in the lecture portion. Three lecture hours, one two-hour lab.

Text: Using C++ Programming (From Problem Analysis to Program Design), 4<sup>th</sup> Edition  
By D. S. Malik, Published by Course Technology  
ISBN 978-1-4239-0209-6

Prerequisite: Familiarity with Microsoft Windows operating system and basic word processing and MAT\* K095 or acceptable math placement score.

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TOPICS/CONTENT

Week 1:	Ch. 1 – An Overview of Computers and Programming Languages
Week 2:	Ch. 2 – Basic Elements of C++
Week 3:	Ch. 3 – Input/Output
Week 4:	Ch. 4 – Control Structures I (Selection)
Week 5:	Ch. 5 – Control Structures II (Repetition)
Week 6:	Ch. 6 – User-Defined Functions I
Week 7:	Midterm Exam
Week 8:	Ch. 7 – User-Defined Functions II
Week 9:	Ch. 8 – User-Defined Simple Data Types, Namespaces and the string Type
Week 10 and 11:	Ch. 9 – Arrays and Strings
Week 12:	Ch. 10 – Applications of Arrays (Searching and Sorting) and the vector Type
Week 13:	Ch. 11 – Records (struct)
Week 14:	Ch. 12 – Intro to Classes and Data Abstraction
Week 15:	Final Exam