

**THREE RIVERS COMMUNITY COLLEGE
COURSE OUTLINE**

Intro to Programming
Prof. George Volkov
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CSC K108
Fall 2008
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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), 4th 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.

TOPICS/CONTENT

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|-----------------|---|
| 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 |