



NKU CSC 501 – Fall 2004
**Intermediate Programming
Workshop**

An intensive course in C/C++ and data structures emphasizing object-oriented programming. A foundation for the programming skills needed for Masters-level coursework in computer science

instructor Kevin Kirby: 340 ST, 859-572-5377, kirby@nku.edu, www.nku.edu/~kirby/.
Office hours: 6-7:30 MW or by appointment.
I'm usually around and available.

prerequisites Graduate standing or consent of program director.
Assumes intermediate-level mastery of at least one high-level programming language.

- topics**
1. Procedural and object-oriented aspects of C/C++ (\approx 5 weeks)
Program organization, pointers, file I/O, references, exceptions, classes, inheritance, runtime polymorphism, template basics.
 2. Data structures and algorithms (\approx 10 weeks)
Complexity estimates, recursion, sorting, stacks, queues, lists, abstract sequences, abstract tables, binary search trees, self-adjusting search trees, graph basics.

textbooks Deitel and Deitel. *C++: How To Program*, 4th Edition
(Prentice-Hall, 2003).

Goodrich, Tamassia and Mount. *Data Structures and Algorithms in C++*.
(Wiley, 2004).

coursework 5 programming assignments (75%)
A midterm exam (10%)
A cumulative final exam, [Tuesday December 14 6:45-8:45pm](#) (15%)
The course is graded A,B,C,F.

drop date October 30 is the last day to drop with a grade of W.

platform requirements Any recent standard C++ compiler will be fine. If you use Windows, Visual Studio 2003 is recommended. CDs are available from the Lee Weiner in the 344 ST lab.

on dishonesty Assignments must be done individually unless stated otherwise on the handout. Evidence of collaboration in coding, or appropriation of code from a source not authorized by the instructor, may result in a grade of F for the course.

**general
comments**

Attendance is required but not recorded.

Class participation is important; our meetings are meant to be dynamic and productive. After each class, I will put my outline of what we talked about on the course website. Use these outlines to help you review your own notes.

I will not debug your code, of course. But I will happily give some gentle guidance when you're stuck. Feel free to stop by.

Programs are graded on style and design as well as on nominal correctness. Take pride in your work and polish it to a high gloss. Start early, work incrementally, test continually.

As stated in the university catalog, you should allow 6 hours outside class per week for a 3 credit course.

Ask questions.

Have fun.

Note: "The instructor reserves the right to alter the syllabus if circumstances dictate."