

Common Course Outline
CINS 229
Advanced C Language Programming
4 Semester Hours

The Community College of Baltimore County

Description

Advanced C Language Programming

Emphasizes Windows Graphical User Interface (GUI) programming using Microsoft's Win32 API; includes design, code, and debugging of Windows programs using Microsoft's Visual C/C++ programming environment.

3 credits: 2 lecture hours, 2 laboratory hours.

Prerequisite: CINS 225 or consent of the Program Director or Academic Dean.

Overall Course Objectives

Upon completion of this course the student will be able to:

1. Describe purpose and function of Win32 API
2. Employ Win32 primitives in C language programs
3. Create, query, and update scroll bars
4. Create custom menus
5. Utilize sound in C language programs
6. Create custom icons and cursors
7. Implement dialog boxes
8. Create toolbars and tooltips
9. Design, code, debug, and document moderately complex Win32 API programs

Major Topics

1. Review of advanced data structures
2. Review of pointers
3. Macros
4. Introduction to Win32 API
5. Win32 Skeleton Program
6. Graphics and the Graphical Device Interface Primitives
7. Using Fonts
8. Icons and Cursors
9. Sound
10. Bitmaps
11. Menus and Menu Options
12. Dialog boxes

13. Toolbars and Tooltips
14. Building complex Applications

Course Requirements

Grading: Grading procedures will be determined by the faculty member, will be provided the first week of class, and will include:

1. Minimum of 6 programming projects
2. Minimum of 6 tests or quizzes.
3. Comprehensive final exam.

Other Course Information

This meets the programming language requirement in CIS: Programming and is a CIS elective.

This course is taught in a computerized environment.

This course is the second course in a two-course sequence.

Date Revised: 6/1/00