

PROG 2803 ADVANCED PROGRAMMING TOPICS (FORMERLY CISQ 1283)

Catalog Description: This course will cover a varying advanced programming topic. The topic will cover new developments in the changing environment of computer science. This course may be repeated when topics vary.

Prerequisite:

PROG 1203 C++ Programming I or consent of Instructor

Credit Hours/Contact hours/Load hours: 3 / 3 / 3

Target Audience & Transfer:

This course is for students seeking self-improvement and/or the AAS degree in Computer Information

General Course Objectives:

Students completing this course should be able to:

Knowledge:

Understand structured program design concepts.

Demonstrate competence of structured programming concepts by designing solutions to various selected problems.

Implement those designs as Windows applications that incorporate basic Windows elements such as menus, common controls, and dialog boxes.

Critical Thinking:

Analyze problems, develop an algorithm, incorporate the algorithm into a Windows application, and test and evaluate the application's output.

Academic Skills

Apply computational and algebraic skills to problems

Cultural Awareness

Have an understanding how computers and software interfaces affect people and processes.

Required Text(s):

Programming with Microsoft Visual Basic 6.0 An Object-Oriented Approach,
by Michael Ekedahl and William Newman, Course Technology

Optional Text(s):

None

Topics/Software:

Software: Microsoft Visual Basic

Visual Basic Editor

Common controls

Creating single form projects

Creating multiple form projects

Menus

Programming control structures:

sequence, selection, and repetition

Common dialog boxes

Arrays and objects

Accessing a database with Visual Basic

Using data controls in an application

File input and output

Other controls:

list boxes, combo boxes, Internet controls, etc.

Required Instructional Activities:

NorthWest Arkansas Community College
Business and Computer Information Course Outline

It is required that all instructors who teach this course cover all topics listed above. If difficulties arise, early contact must be made with the lead faculty to find and share ideas to deliver remaining content. Naturally, no optional section can be done in lieu of required sections. Individual instructor's syllabi must contain required components. The upper portion of this course outline may be distributed but is not sufficient alone as a syllabus.

Laboratory exercises, consisting of designing and implementing various programming projects, should average 3 hours per week.

Outside lab time may be required.

Required Forms of Assessment:

Resources:

From NWACC:

Open access computer lab