

NorthWest Arkansas Community College  
Business & Computer Information Systems Division  
**Computer Information Department Course Outline**

## **PROG 1103 GUI Programming (S)**

### ***Catalog Description***

This course provides an introduction to Windows GUI programming using an appropriate language. Students will gain knowledge and skill in object-oriented programming and the design of graphical user interfaces, as well as using a Database and persistent data. Topics include common GUI widgets, event handling, and Object oriented design. (Outside lab time will be required)

### ***Prerequisite***

PROG 1003 Introduction to Programming Logic

### ***Credit Hours/Contact Hours/Load Hours***

3/3/3

### ***Target Audience/Transferability***

This course is for students seeking training in application development, and is applicable to students seeking self-improvement or an AAS degree in Computer Information

### ***Student Learning Outcomes***

The student will:

- Apply object oriented programming design concepts
- Demonstrate competence of object oriented programming concepts by analyzing and designing solutions to various selected problems
- Implement those designs as Windows applications that incorporate general GUI widgets (e.g. menus, common controls, dialog boxes, forms)
- Test and evaluate the resulting Windows application
- Apply computational and algebraic skills to problems using proper structure and analysis
- Use a database to persist data in an application.
- Apply and implement events with common GUI widgets.

### ***Topics***

- Concepts of GUI design
- GUI Widgets, including buttons, textboxes, list boxes, checkboxes, radio buttons, dropdown lists, and forms.
- Object-Oriented Programming in a GUI environment
- Common dialog boxes (Open, Save, and informational Dialog boxes)
- Creating single and multiple form applications
- Accessing and using a database to persist data
- Using data structure to solve a given problem
- Menus
- File I/O
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## ***Forms of Assessment***

Chapter quizzes

Programming project for each chapter

Exams