

Northwest Arkansas Community College
Business and Computer Information Systems Division

Discipline Code

PROG

Course Number

1003H

Course Title

Programming Logic I-Honors

Catalog Description

An introductory course on computer program design and development. This course is designed as an introduction to programming for students who have no or little programming knowledge. The student will write computer programs as tools for problem solving. Programs will be written using hierarchy, flow charts and programming code. Programs will be tested and debugged. This is an Honors course. Please refer to the NWACC Honors Program section in the current catalog for more information. (Outside lab time will be required.) Prerequisites/Co-requisites: MATH 0103, or higher, (excluding MATH 1313). Math placement scores not sufficient, student must have passed MATH 0103 class.

Prerequisites/Co-Requisites:

MATH 0103- Math placement scores not sufficient, student must have passed MATH 0103 class.

Credit Hours

3

Contact hours

45

Load hours

3

Semesters Offered

Fall, Spring, On Demand

ACTS Equivalent

None

Grade Mode

A-F

Learning Outcomes

The student will:

- Create an appropriate flowchart for a program to solve the task
- Design and code the appropriate program given a flowchart
- Use basic control structures and variables to solve a problem
- Use Boolean logic to control program flow
- Describe the purpose of a given program
- Debug a program
- Create a program to read / write data from / to an external file

Honors Outcomes

Honors classes (and the Honors Program) promote the following core values:

- Community students will demonstrate civic engagement through Service Learning and exploration of local, national, and global communities.
- Curiosity students will cultivate personal and intellectual curiosity through investigation, discussion, and scholarship.
- Diversity students will explore multiple perspectives through interdisciplinary learning.

General Education Outcomes Supported

None

Standard Practices

Topics list

- Flowcharting and program organization techniques
- Appropriate programming language syntax and structure
- Decision-making programming constructs
- Looping programming constructs
- Boolean logic Concepts

Learning activities

- Assignments and Projects
- This course requires some in class, hands-on work and also additional hands-on work in a virtual or on-campus computer lab.
- Individual projects/presentations.

Assessments

- Homework
- Programming Projects
- Chapter quizzes or programs
- Exams
- Final programming project.

Grading guidelines

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = 0-59%