

## **(390) Computer Programming Concepts (Open Event)**

### **Description & Eligibility**

Demonstrate general knowledge of the computer programming. Any postsecondary or secondary division contestant may enter this objective event.

### **Contestant Must Supply**

- Cordless calculator: Electronic devices will be monitored according to ACT standards. See NLC Calculator Guidelines. Contestants who violate this rule will be *disqualified*.

### **Competition Notes**

- Method of evaluation: objective.
- Reference materials are not allowed. Contestants who violate this rule will be disqualified.
- Length of event: no more than sixty (60) minutes testing time.
- Unlimited entries by state.

### **Contest Competencies**

- Demonstrate understanding of general programming concepts
- Demonstrate knowledge of computer languages
- Demonstrate knowledge of program logic (algorithms, structured design)
- Demonstrate knowledge of structural design techniques and object-oriented concepts
- Demonstrate knowledge of selection statements, logical operators, classes, sequential file access, I/O operations, data structures, and loops
- Demonstrate knowledge of the software development process
- Demonstrate knowledge of software design tools (UML, flowcharts, pseudo code)
- Demonstrate knowledge of structured query language
- Demonstrate knowledge of strings and arrays