I. Course Title: Introduction to Programming

II. Course Prefix/Number: CSCI 150

III. Credit Hours: 3

IV. Prerequisite(s): ACT mathematics score of 19 OR successful completion of Math 099 OR a score of 85 on the Accuplacer Elementary Algebra test.

V. Catalog Description:  
Introduction to computer programming. Students will learn to write object-oriented, structured, event-driven code through the use of a user-friendly programming language such as Visual Basic, Alice, or Microworlds.

VI. Curricular Relationships:  
It is a required course for the Elementary-Mathematics minor. It is one of the mathematics electives for the B.A. Mathematics Secondary Licensure Track 2. It is also required for the computer science minor in communications technology.

VII. Student Learning Outcomes:  
- Students will be able to write, debug, and run programs.
- Students will be able to list and describe principles of event-driven/objected-oriented and structured programming.
- Students will demonstrate an understanding of the principles of visual interface programming.
- Students will be able to articulate, with appropriate sophistication, the underlying structure of computer programs.

VIII. Content Outline:  
1. Introduction to programming.
2. Programming constructs: Variables, symbols, and arithmetic, input and output, sequence, control statements, decisions, repetition, I/O.
4. Event driven programming: Responding to user initiated events
5. Structured programming: Divide and conquer, subroutines, top-down and bottom-up design.
6. Object-oriented programming: Encapsulation, inheritance, polymorphism

IX. Course Procedures/Policies/Grading Scale:  
1. Students will attend lectures and work in the computer laboratory.
2. Examinations will determine approximately 50% of the grade, programming projects approximately 40% and homework/quizzes approximately 10%.

3. There will be approximately 3 one-hour examinations and a comprehensive final.

**X. Required/Recommended Readings:**

A standard text book will be required. Examples include:


**XI. Issues Unique to Course:** None

**XII. Additional Departmental Issues:** None