

SYLLABUS
PART I
EDISON STATE COMMUNITY COLLEGE
CIS 224S C# PROGRAMMING
3 CREDIT HOURS

COURSE DESCRIPTION

Continuation of object-oriented programming techniques using C#. Topics include fundamentals of C#, decision and looping structures, arrays, methods, creating and using classes, and inheritance. Exception handling, event-driven programming, working with databases, and web-application development are introduced. Emphasis will be placed on the use of classes, inheritance, and encapsulation. Prerequisite: CIS 221S, CIS 223S, or department approval.

COURSE GOALS

The student will:

| Bloom's Level | | Program Outcomes |
|---------------|---|------------------|
| 2 | 1. Execute the software development process to create a top-down design approach when writing computer programs. | 3, 4, 5, 7 |
| 5 | 2. Create C# methods, procedures, and other features listed in the course topic outline. | 3, 7 |
| 5 | 3. Use the features of object-oriented programming to design C# programs using classes and objects. | 3, 7 |
| 3 | 4. Use a team approach to solve a computer programming problem. | 3, 6, 7 |
| 3 | 5. Apply appropriate documentation techniques within programs. | 7 |
| 4 | 6. Analyze program code and implement debugging and exception handling techniques. | 3, 7 |
| 2 | 7. Discuss the importance of ethics in the computer industry and the role they play in the field of computer programming. | 1 |

CORE VALUES

The Core Values are a set of principles that guide Edison State Community College in creating its educational programs and environment. They will be reflected in every aspect of the College. Students' educational experiences will incorporate the Core Values at all levels, so that a student who completes a degree program at Edison State Community College will not only have been introduced to each value, but will have had them reinforced and refined at every opportunity.

TOPIC OUTLINE

1. Introduction to C# Programming
2. Methods
3. Object-Oriented Programming in C#
4. Decision Structures
5. Looping Structures
6. Arrays
7. Multidimensional Arrays
8. .NET Framework and Rapid Application Development
9. Windows Forms Programming
10. Event-driven Programming
11. Advanced Object-Oriented Programming
12. Debugging and Exception-Handling
13. Database Integration
14. Web-based Application Development