# MERRIMACK COLLEGE – Professional Education
## MS 410 C#.Net Seminar

## C#.NET

The .NET platform is Microsoft's new evolutionary framework for creating Windows-based and Internet-aware software systems. C# is Microsoft's new language that allows full, rich access to this new platform. This class explores the syntax, semantics, and capabilities of C#, while surveying its applicability to the .NET development model.

This course will also focus on C#.NET files and streams, sequential files, random access files, data structures and collections, Relational Database Model (ADO.NET), creating and processing XML files, stax,operator overloading, structures, indexers, multithreading, networking: streams-based sockets and datagrams, managed vs. unmanaged code, ASP.NET, Web forms, Web controls, and Simple Object Access Protocol (SOAP), Web Services, Linq, reflections.

### In this seminar you will learn to:

- Install C#.NET and compile C# programs
- Create formulas and conditional expressions by using arithmetic, comparison, and logical operators.
- Create and use an instance of a class, including instance and shared data members, and shared and non-shared methods.
- Create and process data utilizing a one, two or three-dimensional array.
- Create an inherited class. Load and process data using constructors and class methods.
- Create and properly use interfaces, structures and enumerations with other user-defined # classes.
- Handle exceptions as need arises providing clean and efficient code.
- Overload C# operators to provide efficient robust code.
- Use C#.NET to create, read and process sequential files of data.
- Utilize Indexers to streamline access to C# objects.
- Efficiently use C# String class methods to process C# Strings.
- Create a C# DLL and import this DLL in a complete business application.
- Use Properties to manage access to a class' instance data.
- Efficiently use Namespaces to avoid ambiguity in inherited data.
- Create and process sequential files of objects.
- Create and process random-access files of objects.
- Efficiently use validation to provide for error-free coding.
- Use structures to store and process data.
- Overload C# operators to provide efficient robust code.
- Create multi-threaded programs to run two or more parts of your program concurrently.
- Use C# and the .NET library to "Internet-enable" your applications.
- Efficiently use managed and unmanaged code in your C# applications.
- Create and process XML files using C#.NET.
- Use ASP.NET to create Web applications.
- Develop and configure Web Forms pages.
- Add HTML and Web Forms server controls to Web applications.
- Become aware of Web Services and their implications for distributed applications.
- Use Reflections to obtain information about a type.