

J. Sargeant Reynolds Community College
Course Content Summary

Course Prefix and Number: ITP 212

Credits: 4

Course Title: Visual Basic.Net II

Course Description

Includes instruction in application of advanced event-driven techniques to application development. Emphasizes database connectivity, advanced controls, web forms, and web services using Visual Basic.NET. Lecture 4 hours per week.

Course Prerequisites/Corequisites

ITP 112 or equivalent

Course Objectives

Upon completing the course, the student will be able to:

1. Develop and understand object oriented design using UML design, inheritance, composition and interface implementation polymorphism, classes with composition and inheritance, and multi-tier design models with components.
2. Develop and understand object oriented programming using basic reflection and runtime type identification, early and late binding, detailed and effective exception interfaces in derived class and common user-interface design issues in Windows applications.
3. Implement the data tier in a multi-tier design using a database connection.
4. Create ADO.Net command objects that execute queries and create and use stored procedures.
5. Discuss database constraints and security and display and update tables using data sets and data tables.
6. Create and use web programming which includes ASP.Net applications with multiple web pages, web services, and web forms.

Major Topics to be Included

1. UML, inheritance, composition, interface implementation, polymorphism
2. Classes with composition and inheritance, multi-tier design models with components
3. Reflection and runtime type identification, early and late binding with upward and downward type casting
4. Detailed and effective exception handling
5. Interfaces in derived class and common user-interface design issues
6. Multi-tier design using a database connection and updates to tables
7. Database constraints and security
8. ADO.Net command objects
9. ASP.Net applications with multiple Web pages
10. Web applications
11. Web services

Effective Date of Course Content Summary: 9/24/2008