



Course Outline

Course Name: Special Languages in CS-I (VB.NET) - 0306215

Prerequisite Course: Visual Programming + Object-Oriented Programming.

Lecturer Name: Salah F. Saleh.

Lecturer Office Number: 217D

Lecture Time: 11:00 – 12:00 (Sun, Tue, Thu)

Office Hours: 12:30 – 2:00 (Mon, Wed)

Intended Learning Outcomes (ILOs):

- Student will has skills of
 1. Structuring data and information.
 2. Analysis, prediction, and generalization.
 3. Formal methods and description techniques.
- Student will be able to
 1. Use the computer tools effectively to solve practical problems.
 2. Recognize and analyze criteria and specifications to specific problem.
 3. Work effectively as part of a team.
 4. Model, design, and evaluate a computer-based systems.
 5. Do independent learning and continue professional development.

Contents Outline:

Subject	Hours
1. Introduction Features of VB.NET, Types of applications in VB.NET, Console Application, Windows Application, Class Library, Windows Control Library.	2
2. Object-Base Programming. Classes and Objects, Methods and Properties, Member Accessing, Constructors, Composition, Garbage Collection, Shared Class Members, Constant and Read only members.	6
3. Inheritance and Polymorphism. Base Class and Derived Class, Protected and Friend Members, Abstract Classes and Methods, Conversion among Classes, <i>NotInheritable</i> and <i>NotOverridable</i> Methods.	6
4. Graphical User Interface. Windows Forms, Event-Handling, Control Objects, Multiple Document Interface (MDI) Windows, User-Defined Controls.	6

5. Exception Handling. Exception Handling Overview, Exception Statement, Finally Statement, Exception Properties.	2
6. MultiThreading. Thread States, Thread Priorities and Scheduling, Thread Synchronization and Class Monitor.	6
7. Database, SQL, and ADO.NET Relational Database Model, SQL, ADO.NET, programming with ADO.NET, Connecting to Access Data Source, Querying an Access Data Source.	6
8. Graphics and Multimedia Graphics Objects, Color Control, Font Control, Drawing Objects, Advanced Graphics Capabilities, Multimedia, Animation, Microsoft Agent.	5

Text Book:

- H. M. Deitel, P. J. Deitel, and T. R. Nieto, "Visual Basic.NET: How to program", 2nd edition, Prentice Hall, New Jersey, 2002.

Useful References:

1. Diane Zake, "Programming with Microsoft Visual Basic.NET", Boston, Thomson Place, 2002.
2. Mat Tagligferrei, "Visual Basic.NET", San Francisco, Sybex, 2001.
3. Duncan Makenzie, "Teach Yourself Visual Basic.NET in 21 days", Indianapolis, SAMS, 2002.

Teaching Methods:

- Lectures.
- Lab Assignments.
- Project.
- Tutorial.

Assessment:

- First Exam: 15
- Second Exam 15
- Homework & Quizzes 10
- Project 10
- Final 50

Important Dates:

- Project Registration Deadline: 1/4/2004.
- Project Submitting Deadline : 13/5/2004.
- Project Discussion Period : 16 – 18 /5/2004.

Good Luck