**Course Outline**

Class**: Honors Computer Programming II**

Resources: **Using Visual BASIC** by M. Sprague. Southwestern - Text

**OOP with Microsoft Visual Basic .NET and Microsoft Visual C# Step by Step** by Robin A. Reynolds-Haertle, Microsoft Press - Text

**CMIS 142: Visual Basic.NET Programming,** Southern Illinois University at Edwardsville - School of Business; Dr. Douglas Bock – Website, Labs, and Handouts

Segment 1 (week 1-3):

Using Visual BASIC - Ch. 6-8

Graphics (Twips, Pixels, Picture Box, and Image Box)

Saving and retrieving binary files

Coordinate systems( scalemode and pset)

Color, Lines, and Circles ( Boxes and Ellipses)

Menu control arrays w/ checked and enabled properties

Select Case and Code modules

Projects and HW/Labs: Dictionary - Hangman

Quadratic/Linear Intersection - Parabola Graph

Cafeteria (Bar and Circle Graph) - Mode

Segment 2 (week 4-6):

Using Visual BASIC - Ch. 9-10

File Handling - Sequential(text), Binary(bytes), and Random(records)

User-Defined Data Types

Open, Put, Get, Close, Kill and EOF

Error Handling

Arrays of Randomly Generated Letters and numbers and Uniqueness

Sorting(Exchange, Bubble, and Comb)

Projects and HW/Labs: Employee(Add, Save, Open, List All,Change, delete) - PhoneList

BlackJack - Deck

Sort( How fast?)- Encrypt

Segment 3 (week 7-9):

Using Visual BASIC - Ch. 10 and 13

Searching (Linear and Binary)

Mid$( Breaking up of strings)

Multiple Document Interface

Advanced Graphics and GUI(Option Buttons, Check Boxes, and Frames)

Projects and HW/Labs: Car Data(Mid$) – Matches

Drawing Program (Freehand, Lines, Rectangles, Circles, and Triangles)

BookRec

Segment 4 (week 10-12):

CMIS 142: VB.NET Programming and OOP with Microsoft VB .NET and Microsoft VC# Step by Step

Intro to OOP and VB.Net (User Interface, Variables, Constants, and Calculations, Decisions and Conditions)

Menus, Common Dialog Controls, Sub Procedures and Function Procedures

Lists, Loops, and Arrays

Windows Database Programming – Multiple Document Interface

Projects and HW/Labs: Repair Parts Sales(RPS) #1 – StuInfo

RPS#2(CustInfo) – BookStore

RPS#3(Profit Estimator) – Payroll

RPS#4(Automotive Sales) – Lists

RPS#5(PartInfo) –Tables

RPS#6(DataBase) - SQL files

Extensions: InterAlliance Master Classes (Drupal(Web), Android (Java), iPhone(Objective C))