CSC K208 Advanced Visual Basic

Course Syllabus - Fall 2012

Course: CSC K208 – Advanced Visual Basic

Program: Computer Science

Hours: Lecture Wed 5:20 – 8:05 pm and Lab Wed 8:10 – 9:50 pm (Room E 125)

Instructor: George Volkov
Office: Room C 258
Campus Office Hours: Mondays 3:30 – 5:00 pm
Wednesdays 12:30 – 2:00 pm
Thursdays 3:30 – 5:00 pm
Phone: (860) 885-2384
E-mail: gvolkov@trcc.commnet.edu

Delivery Format: On-ground with Academic Folder materials/samples/presentations

Dates: Aug. 29 – Dec. 12. No class on Nov. 21 (Day before Thanksgiving)

Textbook: Programming in Visual Basic 2010 by Julia C. Bradley and Anita C. Millspaugh, ISBN # 978-0-07-351725-4 (same textbook that was used for CSC K207, Intro to Visual Basic). Other references will also be used.

Course Objectives: This course is designed to provide the student with object oriented programming using Visual Basic.NET to create Windows applications, console applications, web applications, and web services. Topics include inheritance, polymorphism, graphics, exception handling, multithreading, file I/O, database access, ASP.NET, web forms, web controls, and networking. Three lecture hours, one two-hour lab. Specifically, at the completion of the course students will be able to describe, design and use the advanced programming concepts and Visual Basic (2010 version) features including but not limited to the following:

- Comprehensive review of CSC K207 material
- Structures Plus (advanced concepts and operations)
- Introduction to Object Oriented Programming (OOP)
- Advanced OOP concepts and operations
- Introduction to multiprogramming and multitasking
- Advanced computer Graphics concepts
- Web Forms, Controls and Services
- Data Base concepts and manipulation
- Introduction to Data Structures and its applications

- Other potential topics may include:
  - Advanced Exception and Error Handling
  - Advanced String Manipulation
  - Internet applications
  - XML Validation
  - Advanced Controls

Software: This course will specifically use the Microsoft Visual Studio 2010 Professional software package. This will be available to students as part of the MSDN Academic Alliance.

Supplies and Materials:

Removable media will be required. A USB memory device with a minimum of 8GB capacity is recommended.

Lab Assignments: Weekly assignments from the end of chapter problems or from additional instructor handouts will be given. The hand-in format will be via printed hardcopy. Class assignments should be submitted on or before the due date. An assignment will lose 20% of the score if it is submitted late. Assignments will be graded on professionalism, accuracy, style and completeness. The details for each assignment, including work to be done and the due date will be discussed in class. Students are encouraged to interact with the instructor or other students on these assignments via classroom discussion, but must personally perform the necessary actions to complete the assignments.

Grading and Evaluation Criteria:

30 % of the grade is based on lab assignments
30 % of the grade is based on midterm and final examinations
30 % of the grade is based on special semester project
10 % of the grade is based on attendance and class participation

College Withdrawal Policy:

Students may withdraw, through the Registrar's Office, for any reason. Last day to withdraw is Dec. 10. The withdrawal process must be initiated by the student. Failure to do so will result in a semester grade based on the work completed before the student stopped attending the class.

Week	Topics	Lab assignments
1	Review of CSC K207 material and intro to dynamic control generation and exception handling	The “Numbrix” problem”
2	Introduction to advanced structures and their manipulation	The “Sudoku” problem
3	Introduction to Object Oriented Programming (OOP) and basic manipulations	Continuation of the “Sudoku” problem, concentrating on algorithmic approaches
4	Deeper analysis of Object Oriented Programming (OOP) and advanced manipulations	Introductory OOP assignment
5	Continuation of OOP analysis and design	Intermediate OOP assignment
6	Advanced Computer Graphics objects and manipulation	The “Geometric Shapes” problem
7	Intro to Multiprogramming and Multitasking	Continuation of the above problem – Midterm study and review
8	Midterm Exam	None
9		TBD
10	Web Forms, Controls and Services	TBD
11	Data Base concepts and manipulation	Data Base problem one
12	More on Data Basis	Data Base problem two
13	Data Structures and applications	Sorting problems
14	Other advanced topics	Final study and review
15	Final Exam	Semester Project Presentation and Review

Note: The foregoing course outline is subject to change as conditions warrant.