York Technical College
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Course Prefix/Number: **CPT 213**
Course Title: **Advanced Visual Basic Programming**
Lecture Hrs/Week: **3.0**
Lab Hrs/Wk: **0.0**
Credit Hrs/Semester: **3.0**

Distance Learning Attendance/VA Statement
Textbook Information

COURSE DESCRIPTION

The course is a study of the object-oriented features of visual basic and their use in accessing databases. It includes classes, collection and web access.

COURSE COMPETENCIES

Upon successful completion of this course, the student should be competent to complete the following tasks:

Module 1 – Object-Oriented Programming, Inheritance, Polymorphism, File Processing
- Design and code classes illustrating inheritance and polymorphism.
- Describe the various file access methods in VB.
- Design, code, and test a complete, correct, and documented program using input and output files.
- Describe the various storage classes available in the VB language.
- Design, code, and test a complete, correct, and documented program using variables and structures of storage classes appropriate for the given application.

Module 2 – Stacks & Queues
- Describe the operation of stack and queue data structures.
- Design, code, and test complete, correct, and documented programs using stacks and/or queues, as appropriate for the given application.
- Describe the operations of linked-list and tree data structures.
- Identify, compare, and contrast commonly used methods for data sorting and searching.
- Design, code, and test a complete, correct, and documented program using an implementation of an appropriate search and/or sort method.

Module 3 – Database and Web Applications
- Demonstrate how to setup database connections.
- Explain SQL concepts
- Design, code, and test a complete, correct, and document programs providing a web interfaces and database connections.
- Design, code, and test a complete, correct, and document programs providing a GUI interfaces and database connections.

MINIMAL STANDARDS

Minimal standards of performance on all course competencies for receiving credit for the course and indicated by 60% overall accuracy on evaluation instruments that address the course competencies listed above. Required standards of performance on all course competencies for enrollment in

subsequent higher-level computer technology courses are indicated by 70% overall accuracy on evaluation instruments that address the course competencies listed above.

COURSE REQUIREMENTS

Students are responsible for attending all schedule class meetings until they have completed all course requirements. Students are responsible for all material covered and for all assignments made in all classes. Any student caught cheating or involved in other academic dishonesty will be given a grade of zero and will be subject to further disciplinary action.

ATTENDANCE POLICY

The attendance policy as stated in the York Technical College Handbook will be enforced. Make-up tests will not be given for theory tests. If a student must miss a theory test, he/she will get a zero for that test. However, students have the option of taking the comprehensive final. The student's grade on the comprehensive final will replace his/her lowest theory test grade. It is the student's responsibility to schedule a time for a make-up hands-on test with his/her instructor.

EVALUATION STRATEGIES/GRADING

<table>
<tr><td>Module 1 (35% total)

Test – 15%
Program(s) /Homework – 20%</td><td>Module 2 (30% total)

Test – 15%
Program(s) /Homework – 15%</td><td colspan="2">Grading Scale</td></tr>
<tr><td rowspan="2">Module 3 (35% total)

Test – 15%
*Program(s) /Homework – 20%</td><td rowspan="2"></td><td>90-100
89-89
70-79
60-69
Below 60</td><td>A
B
C
D
F</td></tr>
</table>

*Completion of Module 3 Program(s) is required to receive a grade for the course.

ENTRY LEVEL SKILLS

A student entering this course should be familiar with structured programming concepts, have adequate flowcharting skills and be familiar with the Windows environment. They should possess elementary VB programming skills.

PREREQUISITES: CPT 212 – Minimum grade of "C"

CO-REQUISITES: None

Disabilities Statement: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Office (SRO) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.