CS 1408 Introduction to Computer Science with Visual Basic
Section 20774 MW 1:00 - 2:45 pm N702

Instructor: Dr. Ongard Sirisaengtaksin
Office: S711 **Tel:** (713) 221-8554
Email: ongards@dt.uh.edu (for questions)
Email: ongards4@yahoo.com (for submitting assignments)
Web: http://cms.dt.uh.edu/faculty/ongards/
Office Hours: MW 3:30 – 4:30 pm TTh 11:00 – 12:00 am and by appointment

Catalog description: (4-4-0) History, nature and uses of the computer-, algorithms-, number systems, information representation; and organization, with an overview of computer hardware and software, computing systems and major applications. Ethical and societal issues are discussed. An introduction to programming using Visual Basic with an emphasis on event-driven programming. Visual Basic environment includes objects, events, code, and properties. Control statements, subprograms, data types, arrays, input-output, and user-interface designs.

Course prerequisites: Credit or enrollment in MATH 1404 or MATH 1505 or MATH 1306; and placement in ENG 1301 or above.

Learning Objectives: At the completion of the course, the student should accomplish the following skills:

Learning Objectives	Skills/Activities to Support Learning Objectives
Data Models: basic standard data structures.	Declare and use standard data types (Integer, Char, Double, String) to represent data. Create, implement, use, and modify programs that manipulate the basic standard data structures.
Graphical User Interface (GUI) Design	Use of objects/controls (Label, TextBox, Button, RadioButton, CheckBox, etc.) in designing a GUI.
Program execution	Sequential execution, arithmetic and logic expression evaluation, input and output operations.
Control structures	Standard control structures: sequence, selection, iteration, function calls. Use of standard control structures in the design of algorithms and implementing of those structures in executable programs.
Algorithmic thinking	Use of standard control structures and basic standard data structured in the design of algorithms; read and explain/trace algorithms; write programs to implement a range of standard algorithms e.g. finding the min/max of a list of numbers, computing sum, average of a set of numbers.
Functional decomposition	Appropriate use of functions for modular program design. Function definitions and function calls; scope rules; parameter passing.
Testing and debugging	Defining effective tests; identifying and correcting coding and logic errors; learning the use of integrated development environment (IDE).
Documentation	Descriptive identifiers, pre- and post-conditions, comments

Textbook: Starting Out with Visual Basic 2008 by Tony Gaddis and Kip Irvine, Updated Fourth Edition, Addison Wesley, and Visual Basic .Net IDE downloaded from http://www.microsoft.com/express/product/

Course grade: The course average is determined by two major tests (45%), a comprehensive final exam (30%), 5 to 6 programming projects (15%), and quizzes and assignments (10%). The course grade is determined by the standard college formula based on the course average: "A" (90-100), "B" (80-89), "C" (70-79), "D" (60-69), or "F" (0-59). Major tests are in-class. Test dates will be announced at least one week in advance. ***There are no makeup tests and quizzes*.**

Note:

- All assignments and programming projects **must be turned in at the beginning of the class on the due date**. After that consider as late.
- No late assignment or programming project is accepted after it is graded and returned.
- **If you copy a programming project from someone, both you and that someone who provides you with the project will earn a zero for the project.**
- If you have no more six absences for the semester and your final exam score is higher than one of your test scores, your lowest test score will be automatically replaced by final exam score.
- If you are late for class or leave early, it will be counted as absence.

Statement on reasonable accommodations: UHD adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. Students with disabilities should be notified to register with Disabled Student Services and contact the instructor in a timely manner to arrange for appropriate accommodations.

Last day to drop: Thursday, March 31, 2011

Final exam date: Monday, May 9, 2011 1:00 pm – 3:30 pm

Content:

1. Introduction to Programming Computers and Visual Basic
2. Create Applications with Visual Basic
3. Variables and Calculations
4. Making Decision and Working with Strings
5. Lists, Loops, Validation, and More
6. Procedure and Functions
7. Multiple Forms, Standard Modules, and Menus
8. Arrays, Timers, and More