

**UNC CHARLOTTE
BELK COLLEGE OF BUSINESS**

INFO 3231 Business Applications Development – Spring 2017
001 TR 3:30pm – 4:45pm Friday 339

Course content: Accessible via <http://canvas.uncc.edu>

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Office hours: TR 1:00 – 2:00pm (email to schedule appt.)

Syllabus: This document contains the policies and expectations established for this course. Be sure to read the entire syllabus carefully before continuing in this course. These policies and expectations are intended to create a productive learning atmosphere for all students. Unless you are prepared to abide by these policies and expectations, you risk losing the opportunity to participate further in the course. The standards and requirements set forth in this syllabus may be modified at any time by the instructor. Notice of such changes will be by announcement in class and/or by changes to this syllabus posted on the course Canvas website.

Text and Materials:

- (1) Microsoft Visual Basic 2012: Reloaded, Fifth Edition, by Diane Zak, **ISBN: 978-1-285-08416-9**
- (2) Software: Microsoft Visual Studio
- (3) Lecture presentations, coding examples, assignments and additional course materials will be posted and managed in the course section on Canvas.

Prerequisites: INFO 3130 with grade of C or above.

Course Description: This course is designed to study the development of business applications software. The emphasis will be on the graphical user interface development using object-oriented, event-driven programming methods and techniques with a high-level development tool.

Course Objectives: Upon completion of this course, each student should be able to effectively design, develop, and test business applications written in the Visual Basic (VB) programming language using Microsoft's Visual Studio Integrated Development Environment (IDE). Specifically, students should be able to:

- Understand the underlying foundations of programming in Visual Basic.
- Utilize predefined classes provided in the .NET Framework Class Library and on-line documentation.
- Define, describe, and explain general coding and formatting rules with appropriate data types for specific applications in Visual Basic.
- Understand and use decision (conditional) and repetition (looping) statements in a VB program.
- Define, describe, and use methods and objects in Visual Basic.
- Understand how to declare and use various data types including strings and arrays.
- Create appropriate graphical user interfaces (GUIs) for basic windows applications.
- Create and use user-defined classes and class libraries.
- Develop, test and document a professional looking software package.

Course Workload: The expectation is that students will spend at least 6 hours per week outside of class time practicing coding examples, working on assignments, group projects and preparing for examinations. If your programming background is limited, it is recommended that you spend additional time practicing examples and exploring supplemental learning resources outside of the provided course materials. In addition to the course textbook, there is no shortage of online resources and documentation provided by Microsoft for improving your skills with Visual Basic and the Visual Studio IDE. Learning a programming language, just like learning a new spoken language, takes time but with the proper tools, resources and adequate practice mastery is possible.

Grading:

Four exams will be administered throughout the semester. There will also be a total of five (5) individual programming assignments and a group software development project. The grade breakdown by component is provided below:

Component	Percentage
Exams (4 @ 15% each)	60%
Group Project (1)	10%
Individual Assignments (5 @ 5% each)	25%
Attendance & Participation	5%
Total	100%

The final course grade will be calculated based on the following scale, **no additional rounding will occur**.
A: 100-89.5% and above; B: 89.4-79.5%; C: 79.4-69.5%; D: 69.4-59.5%; F: 59.4-0.0%.

Exams: Exams will be administered in class. There will be two parts to each of the exams. Part A will test your general knowledge gained from the textbook readings and classroom lecture/discussions. Part B will test your ability to apply your knowledge of the visual basic programming language into working code through hands-on coding activities. To be properly prepared for the hands-on component (Part B) of the exams, do not just read the textbook and presentation slides. Instead, work out as many coding examples as possible. Learning how to program does not mean you understand the logic by just looking at sample code. You should at least be able to reproduce your own version of working code for each code example. Keep in mind that you learn a lot more from such programming practices than from reading hundreds of pages in textbooks. In the world of coding you learn by doing, while textbooks and online resources are used more as reference guides.

The instructor will keep all exams. Exams are a form of intellectual property belonging to those who create them. Therefore, the exam materials must remain in the instructor's possession or control. Exams may not be taken outside of the labs or copied for any reason. Failure to return an exam after taking or reviewing it or removing an exam from my presence at any time or copying an exam will be considered theft of intellectual property. Such action will result in an exam grade of zero and may warrant further disciplinary action.

Should a student miss an exam because of missing a class, that student will receive a grade of zero. If an excuse is approved before the date of the examination (**proper documentation required**) then the student will take the make-up exam within three school days (M-F). **Students who miss more than one exam should drop the class otherwise they will be given an F.**

Posting grades: Students will have access to their exam and assignment grades via Canvas. The course grades posted on Canvas are for informational purposes only. The official overall grade is computed and kept in the instructor's grade book.

Individual Assignments: Students will complete five individual programming assignments during the semester. These assignments should be submitted via Canvas by 11:59pm on the due date. Assignments submitted after the due date will be considered late. A penalty of 20% of the assignments point value will be deducted for each day the assignment is submitted late, including weekends and beginning immediately following the due date time.

Students must complete each of the programming assignments individually. Any sharing or collaboration between students will be considered a violation of the Academic Integrity Code and will result at a minimum in a grade of zero for the assignment with a possibility of further disciplinary action. All code submissions will be subjected to industry grade code scanning tools to verify uniqueness and author authenticity.

Group Project: Students will form groups to complete a software development project. The complete list of group members must be submitted to the instructor via email with all the group members copied (CC) by 11:59pm on the due date. **All members in a group are expected to contribute to the project. Groups are self-managed and self-governed. If a group member does not contribute, the rest of the members may, after a**

consensus agreement and the instructor's consent, ask him/her to leave the group. The maximum project grade for students not belonging to a group will be a B. Peer evaluations will be factored into individual project grades.

Policies

Attendance & Participation: Students must attend all lectures, labs, quizzes, examinations and presentations. Attendance will be taken at every class, unless otherwise specified by the instructor. Students first two absences will be excused, with attendance grades impacted starting on the third absence. Students with 5 or more absences will receive a zero (0) for the attendance grade. Class attendance is highly correlated with learning the material and performing well on the course assignments and examinations.

Note that (1) some topics discussed in the classroom are not covered adequately in the textbook, thus the instructor will present alternative approaches, and (2) historically, those who skip the class tend to make less than their target grades and (3) the instructor refuses to answer questions due to absenteeism. A student that misses a class is responsible for obtaining any needed information (e.g., notes, announcements, assignments, etc.) from fellow students. **Students are expected to contribute to the active class discussions.**

Class Preparation: Students are expected to study the textbook and other posted materials (notes, presentations, etc.) **prior to each respective lecture.** Additionally, students must be prepared to intelligently contribute to active class discussions and answer questions related to the current topics.

Class Cancellation: If I am unable to attend class or the University is closed unexpectedly, assume the material will be moved forward to the next meeting unless otherwise specified. Recorded lectures may also be posted on Canvas to avoid impacting the course schedule.

Assignments Policy: This 3-credit course requires three hours of classroom or direct faculty instruction and six hours of out-of-class student work each week for approximately 15 weeks. Out-of-class work may include but is not limited to: required reading, library research, written assignments, and studying for quizzes and exams.

You must complete each individual assignment/quiz on your own. Any sharing or collaboration between students will be considered a violation of the Academic Integrity Code and will result at a minimum in a grade of zero for the assignment with a possibility for further disciplinary action.

Academic honesty/integrity: THE UNC CHARLOTTE CODE OF STUDENT ACADEMIC INTEGRITY governs the responsibility of students to maintain integrity in academic work, defines violations of the standards, describes procedures for handling alleged violations of the standards, and lists the applicable penalties. The following is a list of prohibited conduct in that Code as violating these standards: A) Cheating; B) Fabrication and Falsification; C) Multiple Submission; D) Plagiarism; E) Abuse of Academic Materials; and F) Complicity in Academic Dishonesty. For more detail and clarification on these items and on academic integrity, students are strongly advised to read the current "[UNCC undergraduate catalog.](#)"

The instructor may ask students to produce identification at examinations and may require students to demonstrate that graded assignments completed outside of class are their own work.

Disability Services Accommodations: If you are currently registered with disability services and qualify for academic accommodations, please provide your letter of accommodation from the Office of Disability Services at the beginning of the semester.

Religious Accommodation for Students: The University of North Carolina at Charlotte is committed to diversity, nondiscrimination and inclusiveness, and to supporting its students, regardless of religious affiliation or non-affiliation, in accordance with state and federal laws and regulations. As part of this commitment, the University makes good faith efforts to accommodate a student's religious practice or belief, unless such

accommodation would create undue hardship. Details associated with this policy can be found by visiting <https://legal.uncc.edu/policies/up-409>.

Philosophy of teaching: I demand meaningful learning, which can be interpreted by being able to translate the ideas, free of errors, into your own words and solve problems that are structurally different from those presented in class and textbook(s). Hence, always try to learn the materials by concentrating on the underlying principles. I will try to make you think by asking you questions and problems, which may not be directly covered during the class lectures.

Miscellaneous:

- **The instructor reserves the right to change the course outline, and the course contents.**
- **There will be no extra credit offered for any individual student during the semester.**
- **The instructor will keep all exams.**
- **All electronic & mobile devices such as cell/smart phones, laptops, tablets, etc. must be kept silent during the lecture.**

Statement on Diversity:

The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

Tentative Course Outline:

- Chapter 1: Introduction to Visual Basic
- Chapter 2: Creating A User Interface
- Chapter 3: Variables, Constants, and Operators
- Chapter 4: Selection Structure
- **Exam I – Chapters 1-4**
- Chapter 5: Selection Structure Continued
- Chapter 6: Repetition Structure
- Chapter 7: Repetition Structure Continued
- Chapter 8: Sub and Function Procedures
- **Exam II – Chapter 5-8**
- Chapter 9: Arrays
- Chapter 10: String Manipulation and Menus
- Chapter 14: Creating Classes and Objects
- **Exam III – Chapters 9, 10, 14**
- Special Topic: Multiple Form Applications
- Chapter 12: Working with Databases
- **Exam IV – MF, 12**
- **Final Exam – Group Project Presentations**