New River Community College, Dublin, Virginia

ITP 112 Visual Basic.NET I
Course Plan - Spring 2010

Course Number and Title: ITP 112 Visual Basic.NET I
Instructor: Mr. Tom Faigle
Prepared by: Carlotta Eaton (signature on file)
Approved by: Dan Lookadoo, Dean (signature on file)
Note: This one page handout is a subset of the course plan. Please see the course web site (www.nr.edu/itp112) for the complete syllabus/plan.

I. Course Description

Concentrates instruction in fundamentals of object-oriented programming using Visual Basic.NET and the .NET framework. Course content emphasizes program construction, algorithm development, coding, debugging, and documentation of graphical user interface applications. Lecture 4 hours. Total 4 hours per week. 4 credit hours.

This class is a pre-requisite to other programming classes in the NRCC Catalog such as Java (ITP 120 and ITP 220), Active Server Pages (ASP.NET ITP 244), and ITP 240 Server Programming.

Prerequisites

CSC 110, ITE 105 and CSC 200. Students will not receive credit for this class if they have previously taken IST 174/174 or IST 176/177.

Minimum Prerequisite Knowledge

Students are expected to have completed several courses utilizing computers at the high school level before attempting this course. Computer Programming is generally considered an intermediate level computer skill. You should be proficient at the high school level in keyboarding, Windows XP (or Vista) Email, Web surfing, Word, Excel, Power Point and Access before starting this course. You should also be proficient at math and logic skills or high school level Algebra I course.

II. Instructional Materials

- Visual Basic .NET 2008 Express Edition (available on CD in back of textbook)
- Data Files (available on CD in front of textbook)
- You will need Word in order to complete your lecture assignments. Word is available in most labs on campus.
- You will need to complete your programming assignments either at home on your own computer, or plan for time on campus. Visual Basic is available in Mall 109, Mall 127, Mall hallway computers and at Rooker 253 and 254.
III. Evaluation

Exercises, assignments and exams will be used to evaluate this class according to the following point schedule. **Grading:** Exam 1 = 100 points, Exam 2 = 100, Final Exam =100, Lecture and Programming Assignments = 200 (2 * average of all assignments)

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<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>F</th>
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<td>450 - 500</td>
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IV. Location

**Mr. Tom Faigle**  
Office: Mall 125  
Phone: (540) 674-3600 x4145  
Email: tfaigle@nr.edu or tfaigle@vt.edu

V. Attendance Requirements

Students are expected to maintain regular, consistent attendance. Please inform your instructor in advance if you plan to miss a class. Attendance will be taken at the beginning of each class. If you miss a class, you are responsible for getting the missed material. Read the textbook material, check the web page, or contact a classmate for notes before contacting your professor. Missing 2 weeks worth of class or assignments constitutes excessive absences. Excessive absences before the withdrawal date will result in **Faculty Initiated Withdrawal** with a W grade. No refund will be applicable. Excessive absences after the withdrawal date will result in a F grade.

**Inclement Weather Policy**

If NRCC cancels classes due to inclement weather, any quizzes or exams scheduled for that day will be taken at the next class meeting. Any assignments are also due at the next class meeting.

If NRCC is open, but the roads are bad at your home please stay home. Don't risk your life to come to school. Call, cell text, or email your instructor. We will view the high school closings to grant leniency for any assignments due.

VI. Course Content (with tentative schedule)

<table>
<thead>
<tr>
<th>Plan</th>
<th>Topic</th>
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### Course Plan (syllabus)

| Week 1 | General Course Information  
Intro to Visual Basic |
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<tbody>
<tr>
<td>Week 2</td>
<td>1 - Intro to Programming</td>
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<td>Week 3</td>
<td>2 - Creating Applications with Visual Basic</td>
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<td>Week 4</td>
<td>3 - Input and Variables</td>
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<td>Week 5</td>
<td>3 - Exceptions and Calculations</td>
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<td>Week 6</td>
<td>4 - Making Decisions</td>
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<td>Week 7</td>
<td>4 - Working with Strings</td>
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<td>Week 8</td>
<td>5 - Lists, Loops, Validation and More</td>
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<td>Week 9</td>
<td>6 - Subprocedures and Functions</td>
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<tr>
<td>Week 10</td>
<td>8 - Arrays, Timers and More</td>
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<tr>
<td>Week 11</td>
<td>12 - Classes, Collections, and Scrollable Controls</td>
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<td>Week 12</td>
<td>9 - Files, Printing and Structure or Drawing with Lines, Ovals and Rectangles</td>
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<tr>
<td>Week 13</td>
<td>10 - Working with Databases or Drawing with Filled Ovals, Rectangles and Polygons</td>
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<tr>
<td>Week 14</td>
<td>7 - Multiple Forms, Standard Modules and Menus or Graphics and Simple Animation</td>
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<td>Week 15</td>
<td>The final exam will be given at the scheduled final exam time</td>
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### VII. Learning Objectives

Students that successfully complete this course (with a C or higher) will develop knowledge and skills in the following areas.

This course is based on the Computing Curricula 2005 project report (CC2005) to develop curricular guidelines for undergraduate programs in computing including Information Technology, Computer Science, Computer Engineering, Information Systems and Software Engineering. This project was a joint undertaking of the following organizations:

- ACM (Association for Computing Machinery)
- AIS (The Association for Information Systems)
- IEEE-CS (Computer Society of the Institute for Electrical and Electronic Engineers) (IEEE-CS)

This course includes the following topics in the section Common Requirements of Computing Degrees.

1. (Area 2) A foundation in the concepts and skills of computer programming. The foundation has five layers:
   a. an intellectual understanding of, and an appreciation for, the central role of algorithms and data structures;
   b. an understanding of computer hardware from a software perspective, for example, use of the processor, memory, disk drives, display, etc.
   c. fundamental programming skills to permit the implementation of algorithms and data structures in software;
d. skills that are required to design and implement larger structural units that utilize algorithms and data structures and the interfaces through which these units communicate;
e. software engineering principles and technologies to ensure that software implementations are robust, reliable, and appropriate for their intended audience.

2. (Area 4) Understanding of the concept of the lifecycle,
a. including the significance of its phases (planning, development, deployment, and evolution),
b. the implications for the development of all aspects of computer-related systems (including software, hardware, and human computer interface),
c. and the relationship between quality and lifecycle management.

3. (Area 7) The identification and acquisition of skill sets that go beyond technical skills.
a. Such skill sets include interpersonal communication skills, team skills, and management skills as appropriate to the discipline.
b. To have value, learning experiences must build such skills (not just convey that they are important) and teach skills that are transferable to new situations.

This course also includes the following Virginia Community College General Education Learning Objects:

1. Area 1: Communication
   1.1 Understand and interpret complex materials
   1.3 Use standard English
   1.4 Use appropriate verbal and non-verbal responses in interpersonal relations and group discussions
   1.5 Use listening skills

2. Area 2: Critical Thinking
   2.1 Discriminate among degrees of credibility, accuracy, and reliability of inferences drawn from given data
   2.2 Recognize parallels, assumptions, or presuppositions in any given source of information
   2.3 Evaluate the strengths and relevance of arguments on a particular question or issue
   2.4 Weigh evidence and decide if generalizations or conclusions based on the given data are warranted;
   2.5 Determine whether certain conclusions or consequences are supported by the information provided
   2.6 Use problem solving skills

3. Area 4: Information Literacy
   4.1 Determine the nature and the extent of the information needed
   4.2 Access needed information effectively and efficiently
   4.3 Evaluate information and its sources critically and incorporate selected information into his or her knowledge base
   4.4 Use information effectively, individually or as a member or a group, to accomplish a specific purpose

4. Area 6: Quantitative Reasoning
   6.1 Use logical and mathematical reasoning within the context of various disciplines
   6.2 Interpret and use mathematical formulas
   6.4 Use graphical, symbolic, and numerical methods to analyze, organize and interpret data;
   6.5 Estimate and consider answers to mathematical problems in order to determine reasonableness
   6.6 Represent mathematical information numerically, symbolically and visually using graphs and charts

5. Area 7: Scientific Reasoning
   7.3 Reason by deduction, induction and analogy

VIII. Instructional Procedures
The course will consist of discussions, demonstrations, exercises, hands-on exercises, programming exercises, case studies, projects, assignments and exams.

**IX. Withdrawal Policy**

**Student Initiated Withdrawal**

A student may drop or withdraw from a class without academic penalty during the first 60% of a session. For purposes of enrollment reporting, the following procedures apply:

a. After the add/drop period, but prior to a completion of 60% of a session, a student who withdraws from a class will be assigned a grade of "W".

b. After that time, if a student withdraws from a class, a grade of "F" will be assigned.

See the current NRCC Catalog for more details.

**Instructor Initiated Withdrawal**

- A student who adds a class or registers after the first day of class is counted absent from all class meetings missed. Each instructor is responsible for keeping a record of student attendance in each class.
- Students who have not attended class by the last day to drop the class and receive a refund will be deleted by the instructor during the following week. No refund will be applicable.
- When a student’s absences equal twice the number of weekly meetings of a class (within the first 60% of classes), the student will be dropped for unsatisfactory attendance in the class by the instructor. The student will be notified of the withdrawal grade of "W" by the Admission and Records Office.
- After that time, a grade of "F" will be assigned for unsatisfactory attendance.
- See the current NRCC Catalog for more details.

**Withdrawal from the College**

A student who wishes to withdraw from the college should contact a counselor to determine the appropriate procedure. Failure to follow established procedure could place the student's college record in doubt and prejudice the student's return to this or another college.

**X. Academic Honesty**

The NRCC Code of Conduct states:

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As a member of the New River Community College Student Body,
I will act in a responsible manner with the utmost integrity at all times.
I will obey all college rules and regulations.
I will respect the rights and privileges of others.
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Students will be expected to maintain complete honesty and integrity in their experiences in the classroom. Any student found guilty of dishonesty in academic work is subject to disciplinary action. Penalties include but are not limited to disciplinary probation, withholding of transcript or degree, denial of
degree, suspension or expulsion. See the current NRCC Student Handbook for more information and details.

**Sexually Explicit Material:** Warning! Despite the wealth of great material on the web, there are also objects in poor taste. Do not download them or view them on any NRCC computer. Display of sexually explicit images may result in suspension or permanent expulsion from the class at the discretion of the professor. These images are very clearly marked and cannot be downloaded by "accident". Displaying these images on any screen in the computer lab, at any time, would cause embarrassment, would be in extremely poor taste and could be seen as sexual harassment.

**Disability Statement**

If you are a student with a documented disability who will require accommodations in this course, please register with the Disability Services Office located in the Counseling Center in Rooker Hall for assistance in developing a plan to address your academic needs.

**Diversity Statement**

The NRCC community values the pluralistic nature of our society. We recognize diversity including, but not limited to, race, ethnicity, religion, culture, social class, age, gender, sexual orientation and physical or mental capability. We respect the variety of ideas, experiences and practices that such diversity entails. It is our commitment to ensure equal opportunity and to sustain a climate of civility for all who work or study at NRCC or who otherwise participate in the life of the college.

**NRCC Learning Links**

Additional resource materials for some New River Community College classes can be found on the NRCC Web-based learning site at nr.edu/learninglinks.