Course Summary

Description

Course Description: This course is a study of the theory and application of developing dynamic desktop and web-based applications using the .NET Framework and Visual Basic.NET (VB.NET). This course examines the architecture of the VB.NET IDE, the rudiments of the VB.NET programming language, the .NET Framework Class Library, OOP Design, Design Patterns, overriding members, overloading members, component-based programming, exception handling, interface-based programming, common windows controls, file management, control licensing, ADO.NET, connection pooling, and data validation. They will also interface with relational databases, use the GDI class library, draw graphics, perform graphic transformations, build MDI applications, and use access modifiers to control visibility. Students must have access to Visual Studio 2008 or Visual Basic 2008 Express Edition (or higher) software. This software is not provided by the course material grant and must be purchased/provided by the student. (Prerequisite: ENTD200 OR ENTD211)

Course Scope:

This course is one of a series of courses on Enterprise Programming that focuses on developing applications within the context of the Microsoft’s .NET Framework. A general understanding of the workings of the World Wide Web is required prior to starting this course. Prerequisite(s): ENTD361 - Enterprise Development Using VB.NET: Introduction

Objectives

After successfully completing this course, you will be able to

- Identify the impact of the .NET Framework and Visual Basic.NET on Information Technology Management and on Global Economies as it applies to developing, deploying, and managing desktop and web-based applications.
- Demonstrate use of .NET Framework Class Library and the Common Language Runtime (CLR) in terms of its potential for developing enterprise applications.
- Differentiate between traditional programming and event-driven programming and also between traditional programming and object oriented programming.
- Analyze the implementation of OOP in the Visual Basic IDE.
- Examine OOP Design, Design Patterns, Type Inheritance, and Type Conversion in the context of developing enterprise applications using VB.NET.
- Assess the provisions in VB.NET for performing component-based programming, exception handling, and interface-based programming.
- Explain the architecture, advantages, and functionality of data structure, design patterns, storing data, object oriented programming, ADO.NET and XML.
Outline

**Week 1:**

**Topic**

Building Desktop Applications using Visual Basic.NET (VB.NET)

**Learning Objectives**

Explain the architecture, advantages, and functionality of data structure, design patterns, storing data, object oriented programming, ADO.NET and XML.

**Readings**

Chapter 1

**Assignment**

Week 1 Student Introduction

Week 1- Forum

**Week 2:**

**Topic**

Review of VB.NET Language

**Learning Objectives**

Examine OOP Design, Design Patterns, Type Inheritance, and Type Conversion in the context of developing enterprise applications using VB.NET.

**Readings**

Chapter 2

**Assignment**

Week 2- Forum

Assignment 1

**Week 3:**

**Topic**

Object Oriented Programming Part I

**Learning Objectives**

Identify the impact of the .NET Framework and Visual Basic.NET on Information Technology Management and on Global Economies as it applies to developing, deploying, and managing desktop and web-based applications.
Week 4:

Topic
Object Oriented Programming Part II

Learning Objectives

Differentiate between traditional programming and event-driven programming and also between traditional programming and object oriented programming.

Assess the provisions in VB.NET for performing component-based programming, exception handling, and interface-based programming.

Readings
Chapter 6-7
Chapter 19

Assignment
Week 4- Forum
Assignment 2

Week 5:

Topic
Database Programming Part I

Learning Objectives

Explain the architecture, advantages, and functionality of data structure, design patterns, storing data, object oriented programming, ADO.NET and XML.

Readings
Chapter 9-10

Assignment
Week 5 Forum

Week 6:

Topic
Database programming Part II
Learning Objectives
Assess the provisions in VB.NET for performing component-based programming, exception handling, and interface-based programming.

Analyze the implementation of OOP in the Visual Basic IDE.

Readings
Chapter 11

Assignment
Week 6 Forum Assignment 3

Week 7:

Topic
Files and XML

Learning Objectives
Analyze the implementation of OOP in the Visual Basic IDE.

Readings
Chapter 8

Assignment
Week 7 Forum
Assignment 4

Week 8:

Topic
Interfaces and deployment

Learning Objectives
Demonstrate use of .NET Framework Class Library and the Common Language Runtime (CLR) in terms of its potential for developing enterprise applications.

Analyze the implementation of OOP in the Visual Basic IDE.

Readings
Chapter 18
Chapter 20

Assignment
Week 8 Forum Assignment 5
Evaluation

Students are expected to maintain routine contact with the instructor throughout the course. While the number of contacts may vary according to the specific course and individual student need, the University requires periodic weekly contacts during the semester. Contact will consist of professor notes, forum interaction, and email feedback. The method of discussion will be on-line related to issues concerning forum assignments, quizzes, assignments, the midterm project and final project.

TEXTBOOK READINGS

The main book for the course, Mobile Design and Development, will be used for textbook readings. Review the table at the end of the syllabus to see assigned readings for each week.

PROJECTS

The projects for this course are located throughout each Lesson. The projects that are required for grading with this course are created from scratch.

FORUM

The Forum assignments for this course are designed to promote interactivity among students and enhance the online learning process. The Forum provides maximum flexibility because you do not have to be online at the same time as another person and you can read what other students have written.

Forum Timing: For the forum, you must post your work by midnight on Thursday, continue to follow your classmates’ posts for the remainder of the week, and post the follow-up peer responses prior to midnight on Sunday, except for week one. Your follow-up posts can add additional insight to a classmate’s opinions or can challenge their opinions. Use examples from the readings, or from your own research, to support your views, as appropriate. Be sure to read the follow-up posts to your own posts and reply to any questions or requests for clarification. You are encouraged to conduct research and use other sources to support your answers.

Required Participation: Please keep in mind that the forum assignments require you to make at least 1 post to the forum with at least 250 words about the topic and also respond to at least 2 peers’ posts with at least 150 words. Please be advised that there will be point deductions if you do not comply with these requirements of the assignment. Each one of you will have a different and unique experience that we can all learn from. Your participation in the Forums unleashes the power of synergy in our classroom. To facilitate this interaction, please be prompt when posting your forum work for each week; this provides time for the others to actively engage in the dialogue. For practical reasons, when you respond to other learners’ posts, please start your response by referencing their name. I will read and grade your participation by reading the forum. There is no need to also post your forum work in the assignments area of the classroom. Refer to the forum and the syllabus for more details on grading.

TECHNICAL PAPER:

You will be required to write a technical paper this semester. The technical paper will be the design of an original mobile application. The specifications are as follows:

1. 3-5 pages (double-spaced).
2. Choose what your ideal mobile application would be.
3. The audience for this report will be technical management who will decide whether the application will move into the development phase.
4. Any citations must be in APA style (see Appendix B)
5. One title page. Make sure to choose a descriptive title.
6. Headers on each page that includes the Title in the header.
7. You must get your topic, purpose, and audience approved by the end of Week 2.
8. You must provide a 1-page outline of your paper by the end of Week 3.
9. You must submit a rough draft at the end of Week 5. This is to be a complete paper, meeting the page requirements – not a partially completed paper. Points will be deducted for short or incomplete papers. Your rough draft will not be graded by the rubric, but helpful feedback will be provided to indicate where you are falling short. You may correct any deficiencies before resubmitting your final draft at the end of Week 7.

10. Typewritten in double-spaced format with a readable style and font and submitted inside the electronic classroom (unless classroom access is not possible and other arrangements have been approved by the professor).

11. Comic Sans 11 or 12-point font or Times New Roman styles.

12. Page margins Top, Bottom, Left Side and Right Side = 1 inch, with reasonable accommodation being made for special situations.

13. Your paper must be in your own words, representing original work. Paraphrases of others’ work must include attributions to the authors. Limit quotations to an average of no more than 3 lines, and use quotations sparingly!

Grading:

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Materials

**Book Title:** Professional Visual Basic 2012 and .NET 4.5 Programming-E-book available in the APUS Online Library

**Author:** Bill Sheldon, Billy Hollis, Rob Windsor, David McCarter

**Publication Info:** Wiley Lib

**ISBN:** 9781118314456
Course Guidelines

Citation and Reference Style

- Attention Please: Students will follow the APA Format as the sole citation and reference style used in written work submitted as part of coursework to the University. Assignments completed in a narrative essay or composition format must follow the citation style cited in the APA Format.

Tutoring

- Tutor.com offers online homework help and learning resources by connecting students to certified tutors for one-on-one help. AMU and APU students are eligible for 10 free hours* of tutoring provided by APUS. Tutors are available 24/7 unless otherwise noted. Tutor.com also has a SkillCenter Resource Library offering educational resources, worksheets, videos, websites and career help. Accessing these resources does not count against tutoring hours and is also available 24/7. Please visit the APUS Library and search for ‘Tutor’ to create an account.

Late Assignments

- Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. The due date for each assignment is listed under each Assignment.
- Generally speaking, late work may result in a deduction up to 20% of the grade for each day late, not to exceed 5 days.
- As a working adult I know your time is limited and often out of your control. Faculty may be more flexible if they know ahead of time of any potential late assignments.

Turn It In

- Faculty may require assignments be submitted to Turnitin.com. Turnitin.com will analyze a paper and report instances of potential plagiarism for the student to edit before submitting it for a grade. In some cases professors may require students to use Turnitin.com. This is automatically processed through the Assignments area of the course.

Academic Dishonesty

- Academic Dishonesty incorporates more than plagiarism, which is using the work of others without citation. Academic dishonesty includes any use of content purchased or retrieved from web services such as CourseHero.com. Additionally, allowing your work to be placed on such web services is academic dishonesty, as it is enabling the dishonesty of others. The copy and pasting of content from any web page, without citation as a direct quote, is academic dishonesty. When in doubt, do not copy/paste, and always cite.

Submission Guidelines

- Some assignments may have very specific requirements for formatting (such as font, margins, etc) and submission file type (such as .docx, .pdf, etc) See the assignment instructions for details. In general, standard file types such as those associated with Microsoft Office are preferred, unless otherwise specified.
Disclaimer Statement

- Course content may vary from the outline to meet the needs of this particular group.

Communicating on the Forum

- Forums are the heart of the interaction in this course. The more engaged and lively the exchanges, the more interesting and fun the course will be. Only substantive comments will receive credit. Although there is a final posting time after which the instructor will grade comments, it is not sufficient to wait until the last day to contribute your comments/questions on the forum. The purpose of the forums is to actively participate in an ongoing discussion about the assigned content.
- “Substantive” means comments that contribute something new and hopefully important to the discussion. Thus a message that simply says “I agree” is not substantive. A substantive comment contributes a new idea or perspective, a good follow-up question to a point made, offers a response to a question, provides an example or illustration of a key point, points out an inconsistency in an argument, etc.
- As a class, if we run into conflicting viewpoints, we must respect each individual's own opinion. Hateful and hurtful comments towards other individuals, students, groups, peoples, and/or societies will not be tolerated.

University Policies

Student Handbook

- Drop/Withdrawal policy
- Extension Requests
- Academic Probation
- Appeals
- Disability Accommodations

The mission of American Public University System is to provide high quality higher education with emphasis on educating the nation’s military and public service communities by offering respected, relevant, accessible, affordable, and student-focused online programs that prepare students for service and leadership in a diverse, global society.

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.