Undergraduate Certificate - Visual Basic Application Development

The undergraduate certificate in Visual Basic Application Development focuses on the principles and practices necessary to design, develop, and deploy Web applications using the Visual Basic interactive development environment (IDE). You'll learn to apply Visual Basic applications for real-world environments while focusing on object-oriented programming languages and frameworks. The skills you'll learn from this online certificate will be useful in many organizations that require the creation of custom programs to fulfill business objectives such as accurate data analysis and productivity improvement. This certificate program is intended for undergraduate students who seek to heighten their knowledge of Visual Basic application development without committing to an academic degree program.

Certificate Objectives

Upon successful completion of this certificate, the student will be able to:

- Discuss the impact of the .NET framework on IT Management, Security, and Global Economies as it applies to enterprise ecommerce solutions on the Web.
- Explore and analyze the hierarchy of the Framework Class Libraries (FCL); use the objects and properties to design and develop applications on the Web.
- Appraise the architecture, the life cycle, management issues, and process for developing Visual Basic and ASP Web applications.
- Differentiate between traditional programming and event-driven programming and also between traditional programming and object oriented programming (OOP); examine the application of OOP in the Visual Basic IDE.
- Appraise the features, functionality, power, and advantages of Visual Basic.NET that have made it a viable tool for Web site design, development, deployment, and management.
- Analyze the ASP.NET facilities to establish and maintain state between connections within the context of the stateless and connectionless HTTP protocol.
- Assess the provisions in VB.NET for performing component-based programming, exception handling, and interface-based programming; also assess their impact on IT Management.
- Discuss the architecture, advantages, and functionality of both ADO.NET and the Active-X component architecture; also explain the concept of connection pooling.

Certificate Requirements (18 semester hours)

Code	Title	Semester Hours
ENTD200	Fundamentals of Programming	3
ENTD261	Scripting Languages for the Administrator	3
ENTD460	Desktop Development with .NET Framework	3
ENTD462	Enterprise Development Using ASP.NET	3
ENTD463	Enterprise Development Using C#	3
WEBD241	Web Development Using JavaScript	3
Total Semester Hours		18