

PROGRAM & CAREER HIGHLIGHTS:

- ✓ **\$39,600 - \$89,500 wage range.**
- ✓ *Use of a laptop computer throughout your program.
Available for purchase at the end of your program for a reduced price.*
- ✓ **MCPD Certification support is provided within the program
(Robertson College examination policy).**
- ✓ *Microsoft Academic Alliance Membership - unlimited access to
Microsoft development tools*
- ✓ **Professional Opportunities: Students have found employment working for
IT companies, colleges, regional health authorities and crown corporations.**

Examples of positions graduates of this program can expect to qualify for:

*Software Developer, Application Developer, Solutions Developer,
Software Programmer*

SOFTWARE & DATABASE DEVELOPER

The goal of this program is to prepare you for a rewarding career in Software & Database Development. The skills taught in this program allow you to work in a variety of programming careers such as software developer, application developer, software programmer and database developer. Demand for this skill set continues to grow as businesses IT needs continue to change. As well, this course will help to prepare you to challenge the Microsoft Certified Professional Developer certification at the end of the program.

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PROGRAM OUTLINE - 45 WEEKS

INTRODUCTION TO PROGRAMMING CONCEPTS	This module provides an introduction to writing computer programs with a focus on web applications.
MICROSOFT .NET FRAMEWORK - APPLICATION DEVELOPMENT FOUNDATION	This foundational module will build heavily upon the introduction module and will involve an extensive study of Microsoft's application development platform, the .NET Framework. Obtaining a solid understanding of the .NET Framework is critical to being successful in developing applications using Microsoft tools. This module prepares you to challenge the 70-511 exam (Windows Application Development with Microsoft .NET framework 4).
DATABASES LEVEL 1 - THEORY	A good understanding of relational databases is critical to being a successful database developer. This module will cover the basics of relational databases, discussing topics such as primary/foreign keys, entity relationships and general database design.
DATABASE LEVEL 2 - DESIGN	This module will build on the skills acquired in the previous module and apply those using Microsoft database tools. MS SQL Server will be used to design and create complete database systems. You will also gain a strong understanding of stored procedures and SQL best practices.
DATABASE LEVEL 3 - ADO.NET	This module integrates your database knowledge with the Microsoft .NET framework utilizing a specialized collection of components called ADO.NET. At this stage you are now able to make complex applications with a properly implemented database backend. These series of database modules prepares you to challenge the 70-516 exam (Accessing Data with Microsoft .NET Framework 4).
WEB APPLICATION DEVELOPMENT 1 - ASP.NET	ASP.NET developers are always in high demand, this module introduces you to web app world of ASP.NET. Other topics such as HTML and Cascading Style Sheets (CSS) are covered here as well.
WEB APPLICATION DEVELOPMENT 2 - JAVASCRIPT LIBRARIES	This module will continue with the skills learned in level 1. Examination into more advanced JavaScript techniques such as AJAX and JQuery libraries will be covered.
ADVANCED PROGRAMMING CONCEPTS - OBJECT ORIENTED PROGRAMMING	In this module we revisit the core programming concepts once more, solidifying an understanding of the more advanced topics. Upon completion you will have an understanding of polymorphism, object inheritance and encapsulation. Learning these concepts is vital to becoming a successful software developer. This module prepares you to challenge the 70-515 exam (Web Applications Development with Microsoft .NET Framework 4).
ADVANCED WEB APPLICATION DEVELOPMENT 1 - XML AND WEB SERVICES	Systems on the internet can communicate with one another through universal web services. In this module you will learn about XML, the universal tag language used by most services on the internet.
ADVANCED WEB APPLICATION DEVELOPMENT 2 - SILVERLIGHT, HTML5 AND MOBILE	Web technologies are constantly evolving and it's important to stay on top of it all. In this series of topics we discuss some of the newest web technologies including mobile site development. These two modules prepare you to challenge the 70-513 exam (Windows Communication Foundation using the .NET Framework 4).
XNA GAME DEVELOPMENT	Ever want to know what it takes to develop your own video game? In this module we discuss the major talking points of the XNA libraries.
OTHER TOPICS	Students are given an opportunity to choose additional topics to learn, including: PayPal integration, Cryptography, Captcha Integration, Data Importing/Exporting and Crystal Reports.

GROUP PROJECT	You will get a chance to use all the skills you have learned up to this point and put them together in developing a fully functioning system. SoftwareEngineering best practices will be used throughout the lifecycle of this project.
EMPLOYMENT SKILLS	This course is designed around group activities to develop job-hunting techniques, to identify marketable education, training, and skills, and to recognize the uniqueness of your strengths. The course stresses assertiveness, the success of past students, and various strategies to reveal the hidden job market. You develop your own personal character profile and skills inventory to assist in marketing yourself through the use of covering letters and resumes. You will participate in mock interviews to evaluate your readiness for the job market.
INDUSTRY PRACTICUM	An eight week work practicum is included in this program. This practicum will give you a chance to put your newly acquired skills to work in a "real-world" environment while gaining valuable experience.
STUDY SKILLS FOR COLLEGE STUDENTS WORKSHOP	This three hour workshop introduces students to strategies to be successful in their program and beyond. The following topics will be covered: Reading Strategies, Test-taking Strategies, Good Study Habits, Study Groups & Learning Styles, Self evaluation & creating a personal study plan



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time //

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