



Information Technology

Web Development Concentration

Concentration Overview

Organizations of all sizes are looking for experts who can create, implement, support, and manage their websites. Best of all, as this field keeps growing, it keeps changing - so your creativity and quest for knowledge will always be challenged. In this concentration you'll develop skills and knowledge for web database programming, user-interface design and usability, web server administration and security, and web application development.

Year 2

Courses Include:

[Professional Development for IT](#)

This course covers the skills and knowledge that students require in order to seek out, prepare necessary documentation and compete for employment opportunities. It also provides an overview of the ethical and legal issues that they may encounter as an IT professional.

[Capstone Project](#)

Web developers acquire hands-on experience with this mini-project that incorporates much of the material learned over the past year. The student selects one of several Web server applications to build. The student designs, implements and integrates the Web components. The student employs user interface design, programming, and database technologies and brings it all together to make a working website.

[Web Database Programming](#)

This course introduces students to client- and server-side web scripting to engage back-end database systems. Skills include VB Script/ASP, JavaScript/PHP, or CGI/Perl as well as ODBC and SQL to connect and command databases.

[User Interface Design I](#)

Web developers must start with the concepts of usability. Graphic design principles involving color, font and layout are used to implement these concepts. Software applications and technologies are explored, as needed, to enhance and support this implementation. There is also a further exploration of DHTML web development principles and practices.



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Year 2

Courses Include:

[User Interface Design II](#)

This course continues from the USER INTERFACE DESIGN I course through further exploration of current multimedia, and interface design issues. This advanced course also includes the creation and optimization of media elements, such as graphics, photos, video, and sound, typically used in web environments.

[Web Server Administration](#)

This course explores the set-up and configuration of servers supporting secure Web-based applications. Web-related issues such as virtual hosting/administration, logging, and security issues such as authentication, firewalls, intrusion detection and server hardening are covered.

[Object Oriented Programming with Java](#)

This course is an introduction to the essentials of Java programming including both applications and applets. The course provides an explanation of many of the sophisticated paradigms on which Java programming is based, and how they affect programming strategies and solutions.

[Web Programming with Java](#)

This course focuses on the development of programming skills required for development and implementation of web-based, e-business solutions. This goal is achieved through the application of problem solving, program logic, design techniques, and programming for the internet environment. Course design is based on a familiarity with a UNIX and/or Windows operating environment and prior programming knowledge in the Java Language.