NETWORKING CAREER PROGRAM – CONCENTRATION IN
WEB DEVELOPMENT

The Networking Career Program, Concentration in Web Development provides core skills required to support the whole process of developing a web application. The program is divided into two parts. The first part is focused on coding, program logic, data structures, APIs, and best practices for creating quality software. Students will learn to create user interfaces, handle data flow, build backend for request processing, and implement entity-relationships into efficiently functioning databases. The second part concentrates on application deployment and maintenance, software development lifecycle models, security and privacy issues, testing, project management, and advanced coding techniques.

PAID CERTIFICATION EXAM

Certification exam preparation and fees for 1 exam are included with this program.

$2,240 SUMMER 2025 DISCOUNT*

📅 PROGRAM LENGTH

44 Weeks
48 Credit Hours

⏳ PROGRAM HOURS

600 Total Hours
480 Hours – Instructor Led*
120 Hours – Online

💲 PROGRAM COSTS

Tuition: $2,210 per quarter
Course Materials Fee: $150 per quarter
Supply Fee: $40 per quarter

Total: $2,400 per quarter

Tuition: $8,840 per year
Course Materials Fee: $600 per year
Supply Fee: $160 per year

Total: $9,600 per year

New Total: $7,360 per year

CSS

API

CODE

CSS

COMPUTER SYSTEMS INSTITUTE
800.684.6884
CSINOW.EDU

COURSE DESCRIPTION

User Interface Design
6 Qtr. Credit Hours / 5 Weeks

User interface (UI) is the foreground of any Web site or Web application. Students will practice designing user-centered interfaces using HTML, CSS and JavaScript. The course gives a comprehensive overview of modern HTML components and their attributes, explores layout techniques and styling methodologies. Students will create responsive Web pages using material design guidelines, and enhance the UI with animations and user events processing. Modern elements of HTML5 and CSS3 are presented to replace deprecated Flash components for complex animations and embedded objects. The course also focuses on best practices in user experience to implement intuitive and user-friendly Web sites.

Introduction to Programming
6 Qtr. Credit Hours / 5 Weeks

The course introduces fundamental concepts of programming using Python. Python is one of the most popular interpreted programming languages with powerful debugging and profiling tools that is used to implement professional grade desktop and Web applications. The course covers basic data and control structures, program flow, and typical algorithms. Students will be able to implement complex logical structures, manipulate data objects, identify and fix errors in code, and write clean & readable code using best coding practices. Additional topics include version control and unit testing techniques to improve maintainability and overall quality of the applications.

Web Application Development
6 Qtr. Credit Hours / 5 Weeks

The course focuses on designing and developing Web applications using Python, HTML, CSS, and JavaScript. It provides a hands-on guide to object-oriented python web programming, working with multiple types of servers, databases and web frameworks. Topics include http request processing, web-services, web-filters, testing, debugging, multithreading, user session processing, maintenance of web applications. Students will learn to create scalable, maintainable, and flexible applications for the web. Integration testing techniques will be introduced to improve quality control over complex multi-tier software systems.

Database Administration
6 Qtr. Credit Hours / 5 Weeks

The course will explore the relational database model with emphasis on the design and querying of relational databases. The course will improve student skills in programming, modeling the structure of data and administering databases. Focus is placed on the 3 subsets of Structured Query Language (SQL): Data Control Language (DCL), Data Definition Language (DDL), and Data Manipulation Language (DML). Students will learn to create and modify database tables, manipulate data, perform complex join queries, create triggers and stored procedures, enforce referential integrity constraints, control user permissions and concurrent access.

Advanced JavaScript
6 Qtr. Credit Hours / 5 Weeks

The course provides a deeper look at the newest features and frameworks in JavaScript environment. Modern JavaScript technologies allow developers to build web applications without using any additional backend languages. Web developers can take advantage of server-side JavaScript by utilizing Node.js. This course explores both Functional Programming and Object-Oriented Programming techniques. Topics covered include closures, composition and inheritance, scope and execution context, asynchronous event processing, memory leaks, type coercion, higher order functions and more.

Application Servers Administration
6 Qtr. Credit Hours / 5 Weeks

Application servers are cross-platform software applications that handle communications between client applications and back-end business logic implementation. They provide a platform independent programming interface for developing portable applications in a variety of programming languages. This course helps to build core competencies in managing application servers and containers through hands-on experience. Students will better understand web application architectures and their corresponding technologies, be able to configure application servers and deploy applications using Linux terminal and shell scripting. Covered topics include data transfer protocols exploration, types of virtual containers, and software deployment procedures.

Software Development Lifecycle
6 Qtr. Credit Hours / 5 Weeks

Software Development Lifecycle Models describe procedures and activities involved in developing different types of software applications. . Students will learn what parameters to consider when selecting a SDLC model, the phases included in each model, and the types of documentation required during each phase. Topics include sequential and iterative development models, project lifecycle phases, project reviews and quality control procedures.

Web Security and Privacy
6 Qtr. Credit Hours / 5 Weeks

Web developers need to create safe and secure interfaces that can be used to exchange sensitive information, protect data and secure applications to prevent unauthorized access. This course provides an in-depth overview on user and session management, data encryption, secure network communication, and basic penetration testing techniques.

What kind of Jobs can I get with my Skills and Certifications?

- UI Developer
- Web Application Developer
- Software Engineer

Projected Job Growth of 13% for Web Developers from 2018-2028.

– U.S. Bureau of Labor Statistics (bls.gov)