

# WEB APPLICATION DEVELOPMENT PROGRAM

Web Application Development Program 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, implement entity-relationships into efficiently functioning databases. The program prepares students for further study in higher education and enables them to pursue professional goals in the field. Upon successful completion, students will receive a CSI Certificate of Completion and will also be able to earn industry specific certification.



Certifications validate your skills to potential employers. Certification exam preparation and fees for 1 exam are included with this program.



800.684.6884  
[CSINOW.EDU](http://CSINOW.EDU)

**PROGRAM LENGTH**

22 Weeks  
24 Credit Hours

**PROGRAM HOURS**

300 Total Hours  
240 Hours – Instructor Led  
60 Hours – Online

**PROGRAM COSTS**

Tuition: \$4,920  
Course Materials Fee: \$300  
Supply Fee: \$80

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Total: ~~\$5,300 per year~~

New Total: \$4,180 per year



## COURSE DESCRIPTION

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### 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.



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

- UI Developer (Entry Level)
- Web Application Developer (Entry Level)
- Software Engineer (Entry Level)

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

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

“It is hard to find a good school with good teachers who can help students understand programming, and I found that the teachers at CSI were really effective.”

– Radu B., CS Foundation, CS Essential & CS Expert Graduate