

Certificate of Achievement in Web Application Programming

The program of study for the certificate in Web Application Programming will give students a solid grounding in open source web development skills. Students will learn the fundamentals of: working in a Linux environment; developing front-end web pages using HTML and JavaScript; using MySQL databases; and server-side programming techniques using Ruby, PHP, Python, C#, or Java. This course of study prepares students for entry-level positions developing web applications.

Upon completion of this certificate, students will be able to:

- A. Write Unix/Linux commands including redirection and pipes, to manipulate files, directories, their contents and their permissions.
- B. Create regular expressions to perform pattern matching.
- C. Analyze common text processing and operating system tasks and interpret technical specifications to create and program algorithmic solutions including the use of control structures, subroutines and lists.
- D. Write multiple table database queries in SQL.
- E. Create, build and publish interactive Web pages containing text and graphic information using HTML and Javascript
- F. Write object-oriented server-side web site programs that interact with databases.
- G. Operate effectively within a team, gaining work experience.

Students must complete each course with a grade of C or higher. Where applicable, grades of Pass may be used.

Required Courses	Units
CS 160A: Introduction to Unix/Linux	2
CS 155A: MySQL Databases	3
CNIT 132: Intermediate HTML and CSS	3
CNIT 133: Interactive Web Pages-JavaScript and AJAX	3
CS 130A: PHP Programming or CS 131A: Python Programming or CS 132A: Ruby Programming or CS 113A: Intro to Perl Programming or CS 114B: C# Programming or CS 111A: Intro to Programming: Java or CS 111B: Programming Fundamentals: Java	3
CS 130B: Advanced PHP or CS 232: Ruby on Rails Development or CNIT 134: Server-side Tech. for the Web or CS 211E: Advanced Java Enterprise Edition	3
CS 195 / CNIT 195: Website Development Practicum or CS 177: Software Engineering or CS 198: Industry Internship or CNIT 197: Internship and Work Experience or CNIT 198: Internship and Work Experience	1-3
Total Units.....	18-20

Recommended Additional Coursework: CNIT 131 or 131H, CNIT 129, CS 142 or CNIT 131A, CNIT 133M, CS 212, CS 211D, CS 311D, CS 155P
