The Web Development Associate in Applied Science program prepares students for entry-level positions in website design, development, and administration. Students will learn various programming principles, languages, and web technologies to effectively create and deploy dynamic websites. Students will also learn how to integrate web and database servers to increase the productivity and interactivity of a website. Potential job opportunities for students in this program include web designer, web developer, e-commerce manager, web technician, or web server administrator.

**Program Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>MATH 118</td>
<td>General Education Math (or higher Mathematics)</td>
<td>4</td>
</tr>
<tr>
<td>Fine Arts or Humanities course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral Sciences course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Physical Sciences or Life Sciences course</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Required Program Core**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 101</td>
<td>Computer Science 101</td>
<td>3</td>
</tr>
<tr>
<td>CIS 113</td>
<td>Human-Computer Interaction</td>
<td>3</td>
</tr>
<tr>
<td>CIS 114</td>
<td>Mobile Application Development</td>
<td>3</td>
</tr>
<tr>
<td>CIS 116</td>
<td>Operating System I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 144</td>
<td>Java Object Oriented Programming I</td>
<td>3</td>
</tr>
<tr>
<td>CIS 181</td>
<td>Web Development I/Basic Web Technologies</td>
<td>3</td>
</tr>
<tr>
<td>CIS 182</td>
<td>Web Development II/Client Side Scripting</td>
<td>3</td>
</tr>
<tr>
<td>CIS 260</td>
<td>Computer Information Systems Field Project</td>
<td>3</td>
</tr>
<tr>
<td>CIS 281</td>
<td>Web Development III/Server Side Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS 282</td>
<td>Web Development IV/Web Database Integration</td>
<td>3</td>
</tr>
<tr>
<td>BUSINES 111</td>
<td>Introduction To Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**Program Electives**

Students must complete a minimum of 9 credit hours in the subjects Computer Information Systems (0032), Networking Technologies (0165), or Cybersecurity (0162).

**Total Hours**

At least one course must meet the Human Diversity (HD) requirement.

**Pathway**

This is an example course sequence for students interested in Web Development. It does not represent a contract, nor does it guarantee course availability. If this pathway is followed as outlined, you will earn a Basic Certificate (BC), Advanced Certificate (AC) and Associate in Applied Science Degree (AAS) in Web Development. One course will satisfy the Human Diversity (HD) requirement, and is labeled with an (HD) in the sequence below.

The Web Development AAS program prepares students for entry-level positions in website design, development, and administration. Students will learn various programming principles, languages, and web technologies to effectively create and deploy dynamic websites. Students will also learn how to integrate web and database servers to increase the productivity and interactivity of a website. Potential job opportunities for students in this program include web designer, web developer, e-commerce manager, web technician, or web server administrator.

**Semester-by-Semester Program Plan for Full-Time Students**

All plans can be modified to fit the needs of part-time students by adding more semesters.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH 101</td>
<td>Composition</td>
</tr>
<tr>
<td>Social and Behavioral Sciences course</td>
<td>3</td>
</tr>
<tr>
<td>CIS 101</td>
<td>Computer Science 101</td>
</tr>
</tbody>
</table>
CIS 116 Operating System I 3
CIS 181 Web Development I/Basic Web Technologies 3

Semester 2
MATH 118 General Education Math (or higher Mathematics) 1 4
CIS 113 Human-Computer Interaction 3
CIS 144 Java Object Oriented Programming I 3
CIS 182 Web Development II/Client Side Scripting 3
NET TEC 101 Client-Server Database I 3

Hours 15

Semester 3
Fine Arts & Humanities course (HD) 1 3
BUSINES 111 Introduction To Business 3
CIS 114 Mobile Application Development 3
CIS 281 Web Development III/Server Side Programming 3
Select one of the following: 3
CIS 103 Fundamentals of Programming 2 3
Program Elective (p. 2) 2

Hours 16

Semester 4
Physical Sciences or Life Sciences course 1 3
CIS 282 Web Development IV/Web Database Integration 3
CIS 260 Computer Information Systems Field Project 3
Program Elective (p. 2) 3
Program Elective (p. 2) 3

Hours 15

Total Hours 61

1 General Education Requirement
2 Program Elective (p. 2)

Program Elective
Code Title Hours
CIS 118 Information Technology Problem Solving 3
CIS 120 Introduction to Computer Applications 3
CIS 250 Systems Analysis and Design 3

Other recommended CIS, COMPSFI, or Networking Technology courses

Choose your courses with your College Advisor.

Careers

This program can prepare students for the jobs listed below. Click on each one to learn more, including average earnings, annual job openings, and how much education people in that field have. For additional guidance and resources on career options, current City Colleges students and alumni can contact the Career Services Office (https://www.ccc.edu/departments/Pages/Career-Services.aspx).

Web Developers

Job Description

Develop and implement websites, web applications, application databases, and interactive web interfaces. Evaluate code to ensure that it is properly structured, meets industry standards, and is compatible with browsers and devices. Optimize website performance, scalability, and server-side code and processes. May develop website infrastructure and integrate websites with other computer applications.

Salary Based on Experience Level

Take a look at the average hourly/annual earnings for this career in Cook County.

Lightcast earnings figures are based on OES data from the BLS and include base rate, cost of living allowances, guaranteed pay, hazardous-duty pay, incentive pay (including commissions and bonuses), on-call pay, and tips.

Annual Wages

Entry-Level 10th Percentile $48,858
Median 50th Percentile $77,241
Senior-Level 90th Percentile $136,128

Hourly Wages

Entry-Level 10th Percentile $23
Median 50th Percentile $37
Senior-Level 90th Percentile $65

Annual Job Openings

155 annual openings in Cook County

National Education Attainment

Here, you can see the level of education that people in this career complete.

Degree Program % of Jobs
A high school diploma or less 12.50%
A certificate 16.67%
Some college 4.17%
An Associate degree 16.67%
A Bachelor's degree 50.00%
A Master's or Professional degree 0.00%
A Doctoral degree or more 0.00%

50.00% continue their education beyond an associate degree