



## Strategic Workforce Initiative (SWI) Abstract Proposal Information Technology (IT) WEB Development

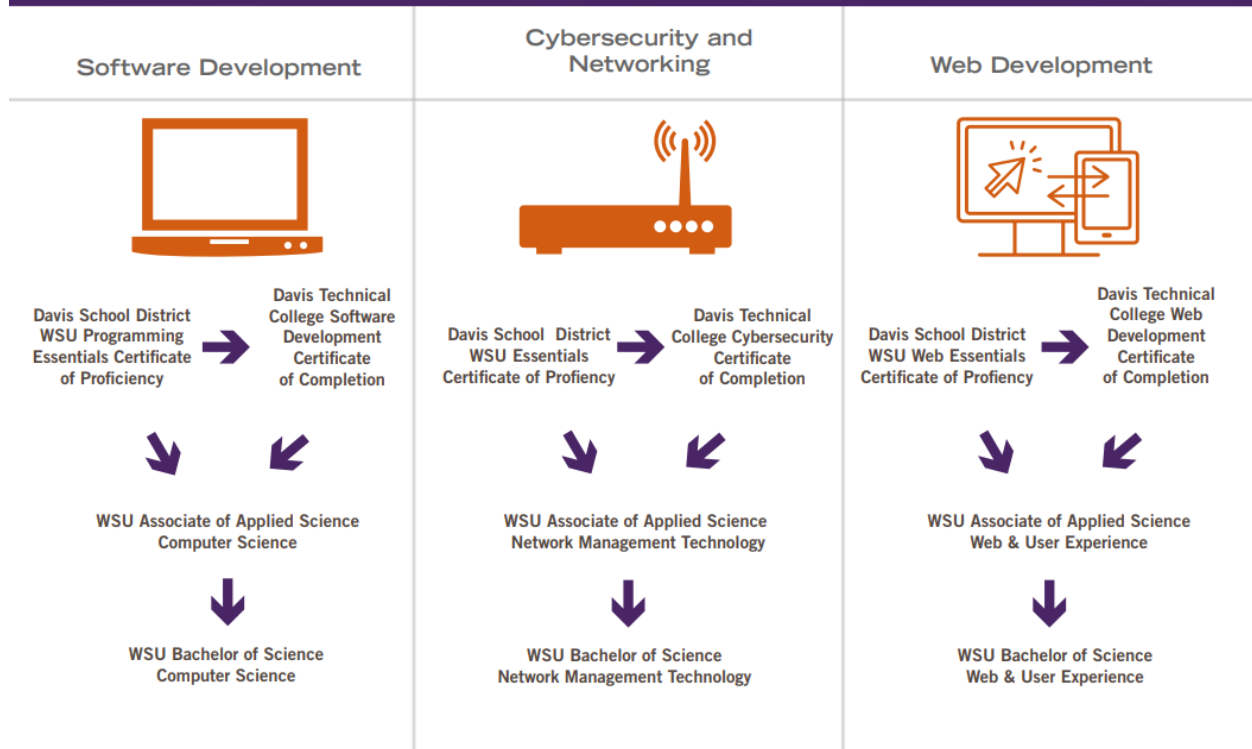
**Partnership**—Weber State University (WSU), through the College of Engineering, Applied Science & Technology (EAST) and the School of Computing, a departmental unit within the college, is applying for Strategic Workforce Initiative funding for a cooperative IT pathway among the following education partners:

- Weber State University—Dean David Ferro, College of Engineering, Applied Science & Technology; Dr. Allyson Saunders, Associate Dean; Dr. Brian Rague, Department Chair, School of Computing
- Davis Technical College—Mike Bouwhuis, President; Kim Ziebarth, Vice President of Instruction; Marcie Valdez, Foundation Director and Grant Administrator
- Davis School District—Jay Welk, CTE Director; Neil Hancey, Skilled and Technical Services; Mike Parker, CTE Information Technology

Weber State University, Davis Technical College, and Davis School District are current members in the Governor's Information Technology (IT) Pathway Pilot partnership for the Northern Wasatch Front Region (NWFR). This NWFR partnership covers the following three pathway areas for Information Technology:

1. Software Development
2. Cybersecurity and Networking
3. Web Development

# Wasatch Front North Region IT Pathways



**Figure 1: Wasatch Front North Region IT Pathways**

## Proposal—Web Development Pathway

This proposal involves the third pathway in the Wasatch Front North Region, which is Web Development. Last year’s approved proposal for WSU and area school district partners was in the area of software development. This proposal is for the web development pathway leading to different associate’s degree and bachelor’s degree. The following paragraphs describes each partners roll in the web development pathway.

### **Weber State University**

This proposal involves the third pathway: Web Development. WSU proposes to add a 16-credit Web Development Essentials Certificate of Proficiency as a stackable credential. The courses in this certificate will be articulated with Davis Technical College, and these same courses will be offered as concurrent enrollment courses with Davis School District. This WSU Certificate of Proficiency is in the initial approval stages and requires approval through appropriate curriculum channels. Currently, WSU offers the following courses as concurrent enrollment that would apply towards the 17-credit Web Development Essentials Certificate:

- WEB 1400 – Web Design and Usability (3 credits)
- CS 1030 – Foundations of Computing (4 credits)
- CS 1400 – Fundamentals of Programming (4 credits)

The following courses are proposed concurrent enrollment courses to match Adobe Certifications of Davis School District students:

WEB 2200 – Image Editing (3 credits)

WEB 2210 – Computer Illustrations (3 credits)

WSU’s Web and UX program offers certificates of proficiency and associate’s and bachelor’s degrees, providing a number of entry and exit points for students with each successive step. This proposed pathway will achieve two goals of the Strategic Workforce Initiative: (1) provide students access to an advanced degree and associated higher wages, and (2) prepare students with skillsets that allow for earlier access to available employment through internships. WSU is already a participant of an SWI with Davis School District in the area of Programming and Software Development (Computer Science.)

WSU would require an instructor/coordinator to teach Web and UX at WSU and work with Davis School District to assist an increasing number of students in successfully completing the web essentials certificate (through concurrent enrollment) while in high school. Thus, high school students could complete this 16-credit certificate from Weber State University while attending high school. Moreover, students will have 16 of the 40 major course credits required for the Web and UX Associate of Science degree. These students can be even further ahead in their degree pathway if they take other general education concurrent enrollment courses such as English and mathematics. This instructor would also coordinate articulated courses with Davis Technical College.

### ***Davis Technical College***

Students in the Davis Technical College Digital Media Design program are prepared for employment as web developers capable of image editing, graphic design, video production, search engine optimization, and animation. Students in this 1,200-hour program can earn up to 30 industry credentials, providing third party validation of knowledge and skill, increasing employability.

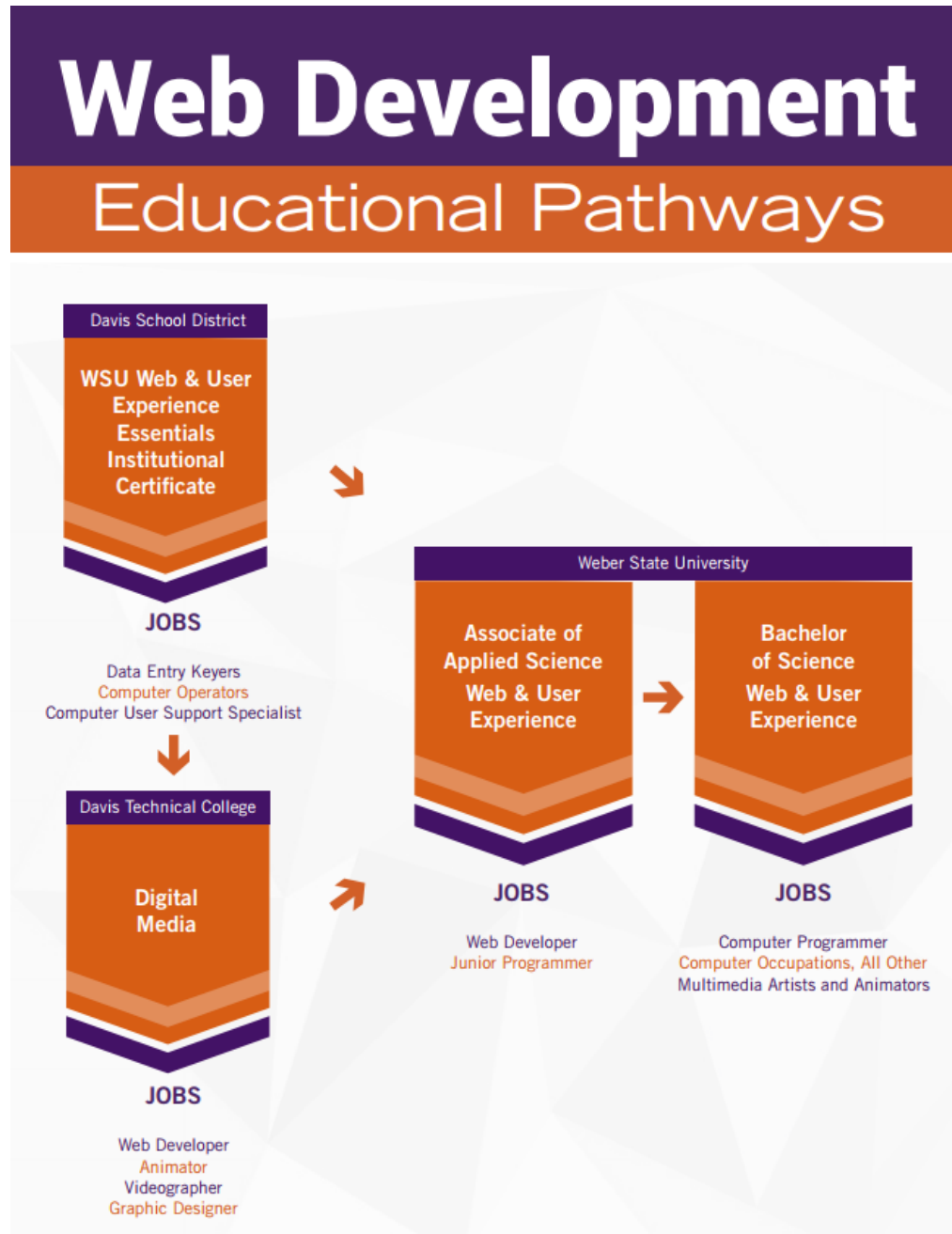
While the program boasts an 88% job placement rate, student enrollment is limited by the number of faculty members, impacting the pipeline to industry and educational growth opportunities for students. The College needs another faculty member who will be responsible for instruction, student advisement, and development of industry relations, contributing to student externships and placement opportunities.

### ***Davis School District***

Industry Certifications: Davis District provides Adobe Certified Associate testing in each of their 10 high schools. The cost for each school is \$3,400 per year. Those licenses include unlimited practice and certification exams. Students can test in Photoshop, Premiere Pro, InDesign, and Illustrator.

**Stackable Sequence of Credentials**—To meet the growing demand for IT professionals, students are encouraged to start early in IT Education classes in secondary schools. Figure 2 contains the educational and employment opportunity IT pathways for Davis School District, Davis Technical College, and Weber State University. High school students can take Web Development concurrent enrollment courses that are applicable towards the proposed Web and User Experience Essentials Certificate of Proficiency. Students are also able to complete courses at Davis Technical College in the Digital Media area, which can apply towards the Digital Media Certificate at Davis Tech and/or the Associate of Applied Science degree in Web and User Experience at Weber State University. This AAS degree is a significant step towards the Bachelor of Science degree in Web and User Experience. With

stackable credentials started in high school and completed at Weber State University or Davis Technical College, these students can realistically become IT professionals and obtain employment at each credential level.



**Figure 2: Web Development On-Ramps and Off-Ramps**

**Board of Regents Support**—The Board of Regents will send a separate message of support.

**USTC Support**—Utah System of Technical Colleges will send a separate message of support.

**IT Workforce Needs**—The following table illustrates the number of Utah job openings and wages for job titles at the various levels of education.

<b>Utah IT Employment Needs and Wages (Source: DWS)</b>					
<b>Stackable Education</b>	<b>Job Title</b>	<b>Projected Annual Statewide Job Openings (2014-2024)</b>			<b>Median Annual Wage</b>
		<b>2014 Employment</b>	<b>2024 Employment</b>	<b>Total Annual Openings</b>	
<b>WSU Web Development Essentials Certificates of Proficiency</b>	Data Entry Keyers	4,130	4,700	110	\$30,560
	Computer Operators	330	310	0	\$40,880
	Computer User Support Specialist	7,800	11,250	450	\$42,420
<b>Tech College Certificate of Completion in Digital Media Design</b>	Web Developers	2,120	3,290	140	\$55,910
	Animators	310	390	20	\$59,380
	Graphic Designers	3,120	4,040	170	\$44,860
	Videographers	240	320	20	\$50,320
<b>WSU Associate of Applied Science</b>	Junior Programmer	DWS data not available – this position leads to computer programmer position			
	Web Developer	2,120	3,290	140	\$55,910
<b>WSU Bachelor of Science</b>	Multimedia Artists and Animators	310	390	20	\$59,380
	Computer Occupations, All Other	2,660	3,530	120	\$72,540
	Computer Programmers	3700	4,480	170	\$77,530

Funding Request Items—The budget requested to support this proposal is listed below:

<b>Budget On-going Funding</b>	
<b>Weber State University</b>	
<b>Funding Need</b>	<b>Budget</b>
<p><i>Faculty Position</i>                      A faculty position to bridge the gap of lack of qualified IT teachers in the Secondary Schools. This person would</p> <ol style="list-style-type: none"> <li>a. Facilitate the training for Web Development concurrent enrollment high school instructors.</li> <li>b. Teach a minimum of half time (four classes) at the university to offset the increased demand at the university level.</li> <li>c. Advise secondary students in pursuing additional educational step (AAS Degree) and employment opportunities.</li> </ol>	\$120,000
<p><i>Student Training</i>—Since employers use a broad range of technologies including over 200 software programs and multiple platforms, students need individualized training that gives students the opportunity to obtain software, platform, and technology skills that are unique to employers. This money covers the cost of students’ access to IT Web Development training.</p>	\$15,000
<b>Davis Technical College</b>	
<b>Funding Need</b>	<b>Budget</b>
<p>Digital Media Design Faculty                      Faculty will increase program capacity and the pipeline to industry and continuing education. This individual would be responsible for</p> <ul style="list-style-type: none"> <li>• Instructing students (30 hours per week)</li> </ul> <p>Student advisement, and development of industry relations, contributing to student externships, and placement opportunities (10 hours per week)</p>	\$120,000
<b>Davis School District</b>	
<b>Funding Need</b>	<b>Budget</b>
<p>Industry Certifications: Davis District provides Adobe Certified Associate testing in each of their 10 high schools. The cost for each school is \$3,400 per year. Those licenses include unlimited practice and certification exams. Students can test in: Photoshop, Premiere Pro, InDesign, and Illustrator.</p>	\$34,000
<b>Total On-Going Funding</b>	<b>\$289,000</b>