

CIT, WEB APPLICATIONS DEVELOPMENT SPECIALTY, ASSOCIATE OF APPLIED SCIENCE



Program Information

Are you intrigued by the internet? Do you want to design fantastic web sites? If so, San Jacinto College's Web Application program might be the right path for you! With a focus on web technologies such as PHP, SQL, and JavaScript, our program teaches students the necessary skills to work in the challenging field of web site creation with a primary focus on web-based programming concepts and web site design.

At San Jacinto College, the web page development curriculum:

- Is designed to provide the student with basic web applications development skills, beginning with HTML and CSS technologies;
- Places an emphasis on designing interactive web applications to communicate with data sources and run across multiple platforms; and
- Offers two paths to earn a Certificate of Technology:
 - The Web Applications Development Specialty Certificate of Technology is designed for students who wish to focus on back-end programming skills utilizing technologies such as PHP and JavaScript to create interactive web applications.
 - The Web Design and Implementation Specialty Certificate of Technology is designed for students who wish to focus on front-end design and web page creation through the utilization of graphic-based software such as Adobe Photoshop, Illustrator, and DreamWeaver.
- Most courses required for either of these certificates will also apply toward the Web Applications Development Specialty Associate of Applied Science (AAS) degree. The College structured both certificates so students can complete them in three semesters. After earning their Certificate of Technology, web students can then earn the AAS degree by completing only one additional semester of study consisting of an additional five courses (15 semester credit hours).

Additional Information

Note for transfer students: Some of the courses for this degree will be accepted for transfer to certain colleges/universities. The College encourages students to check with a counselor for details on course transferability. San Jacinto College offers two courses of study in this area that include computer information technology and computer science.

Career Opportunities

An AAS degree or Certificate of Technology in Web Development prepares students for a career as a:

- Webmaster,
- Web specialist,
- Web applications developer,
- Web designer, or
- Mobile apps developer.

Earning Potential

Web developer: \$98,119¹ per year

¹ Source: texaswages.com (<http://texaswages.com>), median salary Gulf Coast region, 2023

For more information, students may contact 281-998-6350, x3502.

Campus

South Campus

Information

The Computer Information Technology (CIT) program is designed primarily for students seeking an Occupational Certificate, Certificate of Technology, or Associate of Applied Science (AAS) degree. Students can expect to complete most CIT certificates in three semesters and the AAS degrees in as few as four semesters. For those students who have already fulfilled general education requirements, it may be possible to finish degree course work even sooner. It is generally recommended that students complete the Computer Information Technology (CIT) Foundations Occupational Certificate before continuing into a Certificate of Technology or AAS degree. Most courses in this Occupational Certificate will apply toward the other CIT certificates and AAS degrees.

The CIT curriculum provides the graduate with the knowledge and in-demand applied technical skills needed to enter computer-related occupations in the business/industry job market. Certificates and AAS degrees are available in the following areas: Applications Programming, Desktop Support and Network Administration, Information Technology Cybersecurity, Simulation and Game Design, Network Administration Cisco, Cloud Computing, and Web Applications Development.

- The Applications Programming Specialty is for students interested in developing computer programs (designing, coding, testing, and debugging), both stand-alone and web-based, in languages such as C++ and Java as well as gaining skills in the use of Python and SQL. Electives may include courses in C#, Game Design, JavaScript, and mobile app programming. Emphasis is placed on applying the techniques and procedures learned in providing software solutions

for both business-related and practical computer problems that are robust, error-free, and easy to use.

- In Desktop Support and Microsoft Network Administration, a student can choose between a track with emphasis on computer hardware (installing, maintaining, repairing, and upgrading) and software support (installing and configuring) or one with focus on installing, configuring, and maintaining computer networks. This program of study prepares students for CompTIA's A+ and Network+ exams as well as other widely recognized industry certifications. Support and network graduates are invaluable in keeping businesses running smoothly.
- The Cloud Computing program provides individuals education, training, the knowledge, skills, and concepts necessary to serve as a cloud support technician. Upon completion of the program, students will develop the fundamental skills necessary to support and manage infrastructure and workloads on cloud platforms such as Amazon Web Services (AWS) and Microsoft Azure.
- The Cybersecurity (AAS) program provides students with comprehensive foundational knowledge essential for pursuing entry-level security certifications like Security+. This program not only prepares students for immediate certification but also lays a robust groundwork for advanced certifications and further academic pursuits, such as transitioning into a Cybersecurity Bachelor's program. Graduates will be equipped with the skills necessary to effectively safeguard computers and networks against a wide range of threats, including hackers, viruses, and cyberattacks. As a Cybersecurity professional, you will play a critical role in maintaining the integrity and security of digital infrastructures.
- The Simulation and Game Design program is designed for students who are interested in advanced programming areas, as in simulations, game programming, program testing, or multimedia programming.
- In the Network Administration Cisco Specialty, emphasis is on the design, implementation, and administration of local and wide-area router networks.
- The Web Applications Development program prepares students for entry-level positions in website design, web-based applications development, and website administration.
- The IT Specialist program equips individuals for a dynamic career in a rapidly growing field. As technology becomes integral to nearly every industry, the demand for skilled IT support specialists is on the rise. Employment in this sector is projected to grow by 6% from 2022 to 2032, fueled by advancements in cloud computing, cybersecurity, and the ongoing need for technology upgrades. The program offers opportunities to specialize in Cloud Computing, Systems Administration, or CISCO Networking, providing a well-rounded pathway to a rewarding IT support career. Through technical training and essential skill development, graduates are prepared to meet the evolving needs of modern organizations.

Note for transfer students: Due to variations in requirements at four-year colleges and universities, students desiring a bachelor's degree in Computer Science are strongly advised to consult a CIT Department Chair at San Jacinto College and at the institution to which they wish to transfer. This communication regarding transfer degree plans with both computer department heads will help to ensure the transition process is as smooth as possible.

Students enrolling into San Jacinto College programs with external learning experiences (i.e., clinical, practicum, externship, cooperative, etc.) will be required to comply with the immunization requirements and policies of the clinical/external learning sites to engage in all clinical/

external learning experiences. Vaccination requirements at clinical/external learning sites are implemented pursuant to the independent authority of such facilities and are not mandated by San Jacinto College. Failure to meet the immunization requirements mandated by clinical/external learning sites may limit a student's ability to complete the program and/or may delay the student's graduation date. San Jacinto College does not process exemptions, and students should address potential vaccination exemptions directly with the clinical/external learning site.

Web Development

The College has divided the Web Development program into two major areas: Web Page Programming (back end) and Web Page Design (front end). Web Page Programming places an emphasis on designing interactive web applications to communicate with data sources and run across multiple platforms. Web Page Design focuses on the aesthetic layout and artistic style of the website through the utilization of graphic-based software for web page creation.

Associate of Applied Science Degree

The College designed the following degree to provide the student with basic Web applications development skills. Common job titles for this degree include webmaster, web specialist, web applications developer, or web designer.

Students who wish to pursue a bachelor's degree after graduation from San Jacinto College may want to consider programs in the Western Governors University (WGU) College of Information Technology. WGU will accept credit for students with the following AAS degrees: CIT Applications Programming Specialty; CIT Desktop Support and Microsoft Network Administration; CIT Information Technology Cyber Security Specialty; CIT Network Administration Cisco Specialty; CIT Simulation and Game Design; CIT Web Applications Development Specialty. Interested students may find more information on the WGU website (<https://partners.wgu.edu/Pages/transfer-iid-1154.html>).

Plan of Study

3IT-WBDV

First Term		Credits
ITSW 1307	Introduction to Database	3
ITSC 1309	Integrated Software Applications I	3
ITSE 1329	Programming Logic and Design	3
ITSC 1319	Internet/Web Page Development	3
ITSC 1305	Introduction to PC Operating Systems	3
Credits		15
Second Term		
IMED 1316	Web Page Design I	3
IMED 1341	Interface Design with Photoshop	3
ITSE 1311	Beginning Web Programming	3
ITSE 2313	Web Authoring	3
ITNW 1325 or ITCC 1314	Fundamentals of Networking Technologies or CCNA 1: Introduction to Networks	3
Credits		15
Third Term		
IMED 2311	Web Portfolio Development	3
ITSE 1333	Mobile Applications Development	3

ITSY 1342	Information Technology Security	3
ENGL 1301	Composition I	3
Select one of the following:		3
Life and Physical Science (Natural Science)		
Mathematics		

Credits **15**

Fourth Term

Select one of the following:		3
SPCH 1311	Introduction to Speech Communication	
SPCH 1315	Public Speaking	
SPCH 1318	Interpersonal Communication	
SPCH 1321	Business and Professional Speech	

Language, Philosophy and Culture (Humanities) or Creative Arts (Fine Arts)	3
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Social and Behavioral Sciences or Government/Political Science or American History	3
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Select one of the following:		3
ITSC 2364	Practicum - Computer and Information Sciences, General	

Approved Elective (p. 3)	
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Select one of the following:		3
ITSE 2309	Database Programming	
Approved Elective (p. 3)		

Credits **15**

Total Credits **60**

Capstone Experience: IMED 2311 Web Portfolio Development

Approved Electives

Code	Title	Credits
ITSC 1307	UNIX Operating System I	3
IMED 2315	Web Page Design II	3
ENGL 2311	Technical and Business Writing	3