


Graphic Information Technology (Full-Stack Web Development), BS

ESGITFSWBS

Program description

The BS program in graphic information technology with a concentration in full-stack web development focuses on front-end and back-end website and application development. This cross-disciplinary program has a foundation in user-centered design and client-side scripting (HTML, CSS, JS) and extends to server-side programming (PHP, Python, SQL, etc.).

At a glance

- **College/School:** [Ira A. Fulton Schools of Engineering](#)
- **Location:** [Polytechnic](#) or [Online](#), [ASU Local](#)
- **Second language requirement:** No
- **First required math course:** MAT 117 - College Algebra
- **Math intensity:** Moderate 

Required courses (Major Map)

[2024 - 2025 Major Map \(on-campus\)](#)

[2024 - 2025 Major Map \(online\)](#)

[Major Map \(Archives\)](#)

Concurrent program options

Students pursuing concurrent degrees (also known as a "double major") earn two distinct degrees and receive two diplomas. Working with their academic advisors, students can create their own concurrent degree combination. Some combinations are not possible due to high levels of overlap in curriculum.

Accelerated program options

This program allows students to obtain both a bachelor's and master's degree in as little as five years. It is offered as an [accelerated bachelor's plus master's degree](#) with:

[Graphic Information Technology, MS](#)

Acceptance to the graduate program requires a separate application. Students typically receive approval to pursue the accelerated master's during the junior year of their bachelor's degree program. Interested students can learn about eligibility requirements and [how to apply](#).

Admission requirements

General university admission requirements:

All students are required to meet general university admission requirements.

[First-year](#) | [Transfer](#) | [International](#) | [Readmission](#)

Tuition information

When it comes to paying for higher education, everyone's situation is different. Students can learn about [ASU tuition and financial aid](#) options to find out which will work best for them.

Change of Major Requirements

A current ASU student has no additional requirements for changing majors.

Students should visit the [Change of Major form](#) for information about how to change a major to this program.

Attend online

ASU Online

ASU offers this program in an online format with multiple enrollment sessions throughout the year. Applicants may [view the program's ASU Online page](#) for program descriptions and to request more information.

ASU Local

It is now possible to earn an ASU degree with [ASU Local](#), an integrated college experience in which students take advantage of in-person success coaching and programming experiences on site while completing one of 130+ undergraduate online degree programs, all of which come with online faculty interaction and tutoring support.

Transfer options

ASU is committed to helping students thrive by offering tools that allow personalization of the transfer path to ASU. Students may use [MyPath2ASU®](#) to outline a list of recommended courses to take prior to transfer.

ASU has [transfer partnerships](#) in Arizona and across the country to create a simplified transfer experience for students. These pathway programs include exclusive benefits, tools and resources, and they help students save time and money in their college journey.

Program learning outcomes

Program learning outcomes identify what a student will learn or be able to do upon completion of their program. This program has the following program outcomes:

- Analyze accepted coding and design techniques to apply the most appropriate to web design and development solutions.
- Demonstrate ability to guide a project through a development cycle using industry-standard tools and techniques.
- Implement individually- and collaboratively-built components into cohesive solutions for web design and development challenges.
- Display ability to build and evaluate effective user interactions in web-based systems.

Global opportunities

Global experience

With more than 300 [Global Education program opportunities](#) available, graphic information technology students are able to tailor their experience to their specific interests and skill sets. Whether in a foreign country, in the U.S., or online, students build communication skills, learn to adapt and persevere, and are exposed to research and internships across the world, increasing their professional network.

Career opportunities

Chosen by Indeed as the best job of 2023, and showing a 56% increase in job postings between 2020 and 2023 (<https://www.indeed.com/career-advice/news/best-jobs-of-2023>), full-stack web developer positions seek those who possess skills that allow them to create web applications from the ground up.

The Bureau of Labor Statistics (

<https://www.bls.gov/ooh/computer-and-information-technology/web-developers.htm>) also shows that

these positions offer salaries that can be two to three times more than the national average, and that growth of the field from 2022 to 2032 is expected to far out pace that of the average for all careers (16% compared to 3%).

Full-stack web developers possess knowledge of programming languages and concepts that allows them to shift and grow with the ever-evolving field of web development while also allowing them to work across teams to complete projects. In an article from MongoDB (<https://www.mongodb.com/languages/full-stack-development>), the top languages listed for these positions include HTML, CSS, JavaScript, Python, Java, Node and PHP, all of which are either used in program courses or electives.

Top industries where graduates land include computer software, IT, financial services and higher education. Google, Apple, Fidelity Investments, IBM and Capital One are among the top companies hiring full-stack developers. (

https://www.glassdoor.com/Explore/top-full-stack-engineer-companies_IO.4.23.htm)

Example job titles and salaries listed below are not necessarily entry level, and students should take into consideration how years of experience and geographical location may affect pay scales. Some jobs also may require advanced degrees, certifications or state-specific licensure.

Career	*Growth	*Median salary
<u>Computer Programmer</u>		\$97,800
<u>IT Project Manager</u> ☀	9.7%	\$98,740
<u>SEO Specialist</u> ☀	13.4%	\$68,230
<u>Software Developer</u> ☀	25.7%	\$127,260
<u>Web Developer</u> ☀	17.0%	\$78,580

* Data obtained from the Occupational Information Network (O*NET) under sponsorship of the U.S. Department of Labor/Employment and Training Administration (USDOL/ETA).

☀ **Bright Outlook**

Contact information

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