Informatics, BS

ESCPIBS

The discipline of informatics makes connections between the work people do and technology that can support that work.

Program description

Informatics is about discovering, developing and understanding computer applications that improve people's lives. The Bachelor of Science program in informatics prepares students to become skilled professionals who take a transdisciplinary, user-oriented perspective toward information and computing systems, apply current informatics methods to address society's needs and contribute to the next generation of such systems.

The informatics bachelor's degree program provides an option for students interested in a flexible program in applied information and computing technologies. Students acquire skills in design and implementation of computer systems and have opportunities to build applications that will be used by people in many fields. Students learn to develop software for devices of all sizes, from supercomputers to cell phones and even smaller. The challenges of informatics include designing, developing and applying tools that model, aid or automate activities within science, engineering, business, geography, education and entertainment environments.

STEM-OPT for international students on F-1 visas

This program may be eligible for an Optional Practical Training extension for up to 24 months. This OPT work authorization period may help international students gain skills and experience in the U.S. Those interested in an OPT extension should review ASU degrees that qualify for the STEM-OPT extension at ASU's International Students and Scholars Center website.

The OPT extension only applies to students on an F-1 visa and does not apply to students completing a degree through ASU Online.

At a glance

- **College/school:** Ira A. Fulton Schools of Engineering
- **Location:** Tempe

- **Second language requirement:** No
- **STEM-OPT extension eligible:** Yes
- **First required math course:** MAT 210 - Brief Calculus
  or MAT 265 Calculus for Engineers I
- **Math intensity:** Moderate 

Curriculum

View 2025 - 2026 curriculum | View curriculum 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:

Data Science, Analytics and Engineering (Computing and Decision Analytics), MS

Global Management (Creative Industries and Design Thinking), MGM

Global Management (Data Science), MGM

Global Management (Digital Audience Strategy), MGM

Global Management (Global Affairs), MGM

Global Management (Global Business), MGM

Global Management (Global Development and Innovation), MGM

Global Management (Global Digital Transformation), MGM

Global Management (Global Entrepreneurship), MGM

Global Management (Global Health Care Delivery), MGM

Global Management (Global Legal Studies), MGM

Global Management (Nonprofit Leadership and Management), MGM

Global Management (Public Administration), MGM

Global Management (Public Policy), MGM

Global Management (Sustainability Solutions), MGM

Global Management (Sustainable Tourism), MGM

Global Management, MGM

Robotics and Autonomous Systems (Artificial Intelligence), 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

Additional requirements:

The admission standards for majors in the Ira A. Fulton Schools of Engineering, shown below, are higher than minimum university admission standards. International students must meet the same admission standards, with the possible additional requirement of a minimum English language proficiency test score. If the university requires an English proficiency test score from the applicant, then admission to engineering requires a minimum TOEFL iBT score of 79 (internet-based test, taken in a testing center), a minimum IELTS score of 6.5, a minimum PTE score of 58, a minimum Duolingo English score of 105, or a minimum Cambridge English exam score of 176.

First-year admission:

1. minimum 1210 SAT combined evidence-based reading and writing plus math score or minimum 24 ACT combined score, **or** a minimum high school cumulative GPA of 3.00 in ASU competency courses, **or** class ranking in top 25% of high school class, **and**
2. no high school math or science competency deficiencies

Transfer admission requirements:

Transfer students with fewer than 24 transferable college credit hours:

1. minimum transfer GPA of 3.00 for fewer than 24 transfer hours, **and**
2. no high school math or science competency deficiencies, **and**
3. minimum 1210 SAT combined evidence-based reading and writing plus math score (or 1140 if taken prior to March 5, 2016) or minimum 24 ACT combined score, **or** a minimum high school cumulative GPA of 3.00 in ASU competency courses, **or** class ranking in top 25% of high school class

Transfer students with 24 or more transferable college credit hours must meet EITHER the primary or the secondary criteria (not both):

Primary criteria

1. minimum transfer GPA of 3.00 for 24 or more transfer hours, **and**
2. no high school math or science competency deficiencies (if ASU Admission Services requires submission of a high school transcript)

Secondary criteria

1. minimum transfer GPA of 2.75 for 24 or more transfer credit hours, **and**
2. minimum GPA of 2.75 in all critical courses: MAE 201 Mechanics of Particles and Rigid Bodies I: Statics, MAE 202 Mechanics of Particles and Rigid Bodies II: Dynamics, MAE 213 Mechanics of Materials, and MAE 241 Introduction to Thermodynamics.

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

Admission requirements for many majors in the Ira A. Fulton Schools of Engineering are higher than university admission standards.

Students should visit the Change of Major form for information about how to change a major to this program.

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:

- Master the principles for the usage, design, construction, and evaluation of Informatics systems (ABET target)
- Demonstrate an in-depth understanding and devlopment skill of the Informatics knowledge of the chosen focal area.
- Apply principles of computing and other relevant disciplines to analysis of practical problems and development of solutions.

Global opportunities

Global experience

With more than 300 Global Education program opportunities available to them, informatics students are able to tailor their experience to their unique 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

Informatics careers center on solving problems through the design and creation of information systems, user interfaces, mobile technologies and social media.

Graduates have the ability to develop future information technology solutions that place a strong emphasis on user needs, enabling users to adapt and change dynamically with society's needs. This makes the informatician a strong candidate for jobs in:

- data analytics

- management consulting firms
- technology research centers
- technology startups

Additionally, they are prepared for graduate programs that offer an emphasis in emerging technologies.
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
Business Intelligence Analyst	35.2%	$103,500
Computer Scientist	22.7%	$136,620
Corporate Web Developer	9.7%	$98,740
Geographic Information Systems Technician (GIS Technician)	9.7%	$98,740
Information Security Analyst	31.5%	$112,000
Information Technology Manager (IT Manager)	15.4%	$164,070
Instructional Specialist	2.5%	$66,490
Software Developer	25.7%	$127,260
Video Game Designer	15.2%	$83,240

* 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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