

# Programmer/Cyber Security Analyst Associate of Applied Science Applied Programming Focus

Full-Time, Fall Start

[www.pima.edu/programmer-aas](http://www.pima.edu/programmer-aas)

In the 21st century, the ability to instruct a computer in a language the computer understands rivals reading, writing and arithmetic in importance. In this degree program, you will learn to design and write software programs and applications while developing your problem-solving skills.

**Title IV Financial Aid eligibility:** Yes

## What can I do with this degree?

**Career options:** Become a programmer or programmer/analyst.

**Academic options:** This focus area may apply toward a Bachelor of Applied Science (BAS). See an advisor.

### CHOOSE YOUR COURSES WITH YOUR COLLEGE ADVISOR

## Placement

Students must meet prerequisite standards before taking MAT 151 or 188, and WRT 101 in the pathway below. If you are not prepared for these courses based on placement results you will need to take courses to build your skills prior to taking them. The sequence of courses follows.

Math: ICS 081 > MAT 092 > MAT 097 > MAT 151 or 188

Reading: ACL 080 > REA 091

Writing: ACL 080 > WRT 090 > WRT 101 (or WRT 101S can replace both WRT 090 and WRT 101)

## Semester Pathway

This pathway is a suggested sequence of courses for your program of study. Work with an advisor to develop a unique pathway for you based on your placement recommendations, any prior college courses and your specific situation.

**General Education Note:** When General Education (Gen. Ed.) credits are listed below, select from the appropriate General Education course list linked from the program website. Some programs recommend specific courses.

For this pathway, ensure that one Gen. Ed. course fulfills the C or G requirement.

### Semester 1 - Fall (Semester Total: 15 credits)

**CIS 129:** Programming and Problem Solving I (4 credits)

**CIS 162:** Database Design and Development (3 credits)

**MAT 151:** College Algebra (4 credits)  
or **MAT 188** Precalculus I (4 credits)

**STU 100:** College Study Skills (1 credit)

**WRT 101:** English Composition (3 credits)

### Semester 2 - Spring (Semester Total: 16 credits)

**BUS 125:** eCommerce (3 credits)

**CIS 131:** Programming and Problem Solving II (4 credits)

**CIS 141:** Introduction to VB.NET (3 credits)

**ECN 150:** An Economic Perspective (3 credits)

**MAT 172:** Finite Mathematics (3 credits)

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**Semester 3 - Fall** (Semester Total: 17 credits)

**CIS 185:** Introduction to Python (3 credits)

**CIS 278:** C++ and Object-Oriented Programming (4 credits)

**CIS 279:** Java Programming (4 credits)

**CIS 280:** Systems Analysis and Design: Concepts and Tools (3 credits)

**Gen. Ed.:** CTE Arts & Humanities List (3 credits)

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**Semester 4 - Spring** (Semester Total: 14 credits)

**CIS 250:** Introduction to Assembly Language (3 credits)

**CIS 269:** Data Structures (4 credits)

**CIS 281:** Systems Analysis and Design: Applications Capstone (3 credits)

**CIS 283:** Advanced Python (4 credits)

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**PROGRAM TOTAL: 62 credits**

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Program/Major Codes: AASCPM/CPM1

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**Find more information about this program at:  
[www.pima.edu/programmer-aas](http://www.pima.edu/programmer-aas)**