# COMPUTER INFORMATION SYSTEMS (AAS)

**Award:** Associate of Applied Science Degree

**No. of credits required:** 60

**For more information:** *Contact Business & Applied Technology at bat@harford.edu; or Admissions, 443-412-2109.*

## Program Description

Computer Information Systems (CIS) is the study of the use of computers in business applications. The CIS curriculum presents computer literacy, program design, programming languages and electives in software, network and Internet applications. CIS students may pursue careers as computer programmers, computer simulation/gaming engineers, software specialists, computer user support specialists, network and Internet specialists.

## Program Goals

Computer Information Systems is a career-oriented program focusing on the use of computers in business. Students who successfully complete the Computer Information Systems degree will:

1. Analyze the use of commercial software applications, hardware, networks, programming, and other technologies in information systems at a level of competence appropriate to joining the workforce.
2. Use, maintain and modify existing information systems.
3. Design and implement new information systems.
4. Demonstrate the skills to work in a business environment including working in teams, project management, and professional and effective communication with a wider audience.

## Transfer Information

The CIS program may transfer to four-year colleges, although it is designed to prepare students for entry-level jobs in the computer field. One option for students interested in a Bachelor's degree is HCC's articulation agreement with Towson University. Interested students should contact academic advising or CIS faculty.

## Employment Information

The *Occupational Outlook Handbook* from the U.S. Department of Labor forecasts that careers in the computer industry are expected to increase by 7%, adding over 46,600 positions by 2029. The report indicates continuing growth of the computer industry.

## Degree Requirements
### Recommended Course Sequence

| First Semester | | Credits |
|---|---|---|
| BA 101 | Introduction to Business (GI) | 3 |
| CIS 102 | Introduction to Information Sciences (GI) | 3 |
| ENG 101 | English Composition (GE) | 3 |
| Mathematics Elective (GM) (https://catalog.harford.edu/general-education/#mathematics) [1] | | 3 |
| Physical Education Elective | | 1 |
| | **Credits** | **13** |

| Second Semester | | |
|---|---|---|
| CIS 104 | Computer Operating Systems | 3 |
| Select one of the following: | | 4 |
| CIS 111 | Programming I: C/C++ | |
| CIS 119 | Programming I: Java | |
| CSI 131 | Computer Science I | |
| CIS 115 | Fundamentals of Programming | 3 |
| Biological/Physical Lab Science Elective (GL) (https://catalog.harford.edu/general-education/#biological-physical-laboratory-science) | | 4 |
| Arts/Humanities Elective (GAH) | | 3 |
| | **Credits** | **17** |

| Third Semester | | |
|---|---|---|
| CIS 135 | Introduction to Networks | 3 |
| Select one of the following: | | 4 |
| CIS 221 | Programming II: C/C++ | |
| CIS 214 | Programming II: Java | |
| CSI 132 | Computer Science II | |
| ENG 209 | Technical Writing | 3 |
| CSI/CIS/ISS/DSCI Elective [2] | | 4 |
| CSI/CIS/ISS/DSCI Elective [2] | | 3 |
| | **Credits** | **17** |

| Fourth Semester | | |
|---|---|---|
| CIS 203 | Computer Systems and Procedures | 3 |
| Select one of the following: | | 3 |
| CIS 273 | Cooperative Education: Computer Information Systems | |
| CSI/CIS/ISS Elective [3] | | |
| CSI/CIS Elective | | 3 |
| Behavioral/Social Science Elective (GB) (https://catalog.harford.edu/general-education/#behavioral-social-science) | | 3 |
| Physical Education Elective | | 1 |
| | **Credits** | **13** |
| | **Total Credits** | **60** |

[1] Students should consult with program advisors for appropriate mathematics course selection. A four credit GM may be taken to satisfy the requirement.

[2] Any CIS/CSI/ISS/DSCI course(s) may be taken to satisfy CIS/CSI/ISS/DSCI electives.

[3] Any CIS/CSI course may be taken to satisfy CIS/CSI elective.

## General Education Degree Requirements

Note: The following codes identify courses which satisfy the General Education Degree Requirements:

Behavioral/Social Science (GB)
English Composition (GE)
Arts/Humanities (GAH)
Interdisciplinary and Emerging Issues (GI)
Biological/Physical Laboratory Science (GL)
Mathematics (GM)
Biological/Physical Science (GS)