

# CIS: Programming and User Support

## Associate in Applied Science Degree

### Why Programming and User Support?

The explosion of computer use in today's society has created a high demand for specialists to provide technical and end-user support to people using computer systems. Students who wish to learn about current computer technologies and have an interest in learning about computer applications, cybersecurity, basic programming, and web development should explore this degree program. Students may further enhance their employability options by completing a transfer program in Computer Science.

### Why Bay College?

The [Computer Information Systems Programming and User Support program](#) at Bay College will equip students to select, install, use, and help others to use computer systems and software. Are you interested in developing your own software applications? Do you want to support and train users as they learn new technologies? Do you like working with hardware and configuring networks? Or maybe you would just like to brush up on your software skills. CIS graduates have the opportunity to earn industry certifications as part of their college program including several Microsoft Office Specialist (MOS) Core certifications. MOS certifications are internationally recognized and used to verify proficiency in a variety of Microsoft Office software. Graduates of the CIS: Software/Network Support degree also have the opportunity to earn Microsoft Technology Associate (MTA) certifications in several areas.

### Beyond Bay College

Students interested in transferring to a four-year institution to obtain a bachelor's degree or higher may find opportunities in the following areas of study:

- **Computer Science**
- **Computer Information Systems**
- **Computer Information Technology**
- **Computer Networking/Web Development**
- **Information Assurance/Cyber Defense**
- **Information Systems**
- **Mobile and Web App Development**

### Career Opportunities

Graduates of this program will have the opportunity to enter the fast-paced and constantly changing computer information systems industry where they can gain entry level employment in many areas. Some examples of career fields can include:

- **Program Development**
- **Software Training**
- **Database Support**
- **Web Page Development**
- **Help Desk Support**

### Contact

**Bay College**  
2001 N Lincoln Rd  
Escanaba, MI 49829

**Bay College West Campus**  
2801 N US 2  
Iron Mountain, MI 49801

**Office of Admissions**  
906-217-4010  
admissions@baycollege.edu



[baycollege.edu](http://baycollege.edu)

# CIS: Programming & User Support, AAS

Award Granted Upon Completion: Associate in Applied Science in CIS: Programming & User Support  
Credits/Contacts Required: 60/60

Major code: 03/326  
CIP Code: 151202

## General Education Requirements (Min. 15 Credits)

Course #	Course Name	Cr
ENGL 101	Rhetoric & Composition	3
BUSN 177	Mathematics of Business	3**
XXXX xxx	Social & Behavioral Science or Humanities Elective	3
XXXX xxx	General Education Electives	6

## Requirements (Min. 45 Credits)

Course #	Course Name	Cr
CIS 101	Computer Concepts & Applications	4#
CIS 103	Visual Basic	4 or
CSCI 121	C++ Programming I	3+
CIS 123	Microsoft PowerPoint	1#
CIS 130	Spreadsheet Applications	3#
CIS 135	Introduction to Cybersecurity	2
CIS 140	Database Applications	3#
CIS 210	Web Page Design & Structure	3
CIS 220	Java Programming	4+
CIS 235	Mobile App Development	3
CIS 240	Advanced Database Applications	3#
OIS 150	Word Processing Applications	4#
XXXX xxx	Approved Electives	11-12*

## \* Approved Electives (Min. 11-12 Credits)

Course #	Course Name	Cr
BUSN 160	Introduction to Business	3
BUSN 195	Business Communications	3
BUSN 203	Management Information Systems	3
CIS 103	Visual Basic	4 or
CSCI 121	C++ Programming I	3
CIS 115	Using Microsoft Windows	3
CIS 125	Business Technology Tools	2
CIS 203	Visual Basic for Applications	3
CIS 215	Web Publishing	3
CIS 271	CIS Internship/Co-op	1*
CIS 272	CIS Internship/Co-op	2*
CIS 273	CIS Internship/Co-op	3*
CNSS 115	Cyber Ethics	3
CSCI 122	C++ Programming II	4

## Suggested Sequences Per Semester

### First Semester

Course #	Course Name	Cr/Ct
BUSN 177	Mathematics of Business	3**
CIS 101	Computer Concepts & Applications	4#
CIS 123	Microsoft PowerPoint	1#

CIS 103	Visual Basic	4 or
CSCI 121	C++ Programming I	3

ENGL 101	Rhetoric & Composition	3
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**First Semester Total - Credit(s): 14-15 | Contacts: 14-15**

### Second Semester

Course #	Course Name	Cr/Ct
CIS 130	Spreadsheet Applications	3#
CIS 135	Introduction to Cybersecurity	2
OIS 150	Word Processing Applications	4#
XXXX xxx	Social & Behavioral Science/Humanities Elective	3/3
XXXX xxx	Approved Elective	3/3

**Second Semester Total - Credit(s): 15 | Contacts: 15**

### Third Semester

Course #	Course Name	Cr/Ct
CIS 140	Database Applications	3#
CIS 210	Web Page Design & Structure	3
CIS 220	Java Programming	4+
XXXX xxx	Approved Elective	3/3*
XXXX xxx	General Education Elective	3/3

**Third Semester Total - Credit(s): 16 | Contacts: 16**

### Fourth Semester

Course #	Course Name	Cr/Ct
CIS 235	Mobile App Development	3
CIS 240	Advanced Database Applications	3#
XXXX xxx	General Education Elective	3/3
XXXX xxx	Approved Elective	5-6/5-6*

**Fourth Semester Total - Credit(s): 14-15 | Contacts: 14-15**

## Note(s)

Internships and Co-ops may require that the student pass a criminal background check.

\* Internship/Co-op credits (maximum 3) may be used as elective credits. All internship/co-ops must be approved by an advisor.

\*\* MATH 105, MATH 107, MATH 110, or MATH 210 also accepted.

+ These courses are prerequisites to other courses. Failure to take them in proper sequence may delay program completion.

# These courses must be taken within five years of graduation to meet program requirements.