

# Computer Systems Support

## Computer Systems Support Degrees and Certificates

### Computer Systems Support, Associate in Applied Science

This degree serves students who seek a career in computer systems support. Strong emphasis is given to supporting computer hardware, software, security, and networks. Upon successful completion of the program, employment opportunities may include computer server administrator, help desk technician, and computer support professional.

The A.A.S. in Computer Systems Support is designed to provide students with an opportunity to prepare for industry certifications while earning an associate's degree. During successful completion of this program, students have the potential to earn six industry certifications.

Students who have already earned any of the certifications listed below or have successfully passed certification examinations, may initiate the college's Prior Learning Assessment (PLA) process and translate their certifications or examination results into equivalent course credits.

The following chart is an analysis of how the program courses align with industry certifications:

Certifications/Examination	Program Course(s)
CompTIA A+ Certification	CISM130, CISM149
CompTIA Security+	CISM176
PMI CAPM Certified Associate in Project Management	CISM143
CompTIA Network+	CISM146
CompTIA Linux+	CISM182
AZ-900 Microsoft Azure Fundamentals	CISM230

For additional program information, please contact faculty advisor, Bill Dougherty at (609) 343-4979 or [doughert@atlanticcape.edu](mailto:doughert@atlanticcape.edu) or contact department chair, Dr. Otto Hernandez, at (609) 343-4978 or [hernande@atlanticcape.edu](mailto:hernande@atlanticcape.edu).

#### Upon completion of this program students will be able to:

- Identify hardware and software problems and recommend solutions;
- Prepare for multiple CompTIA certification examinations;
- Configure and administer computer networks;
- Prepare for a certification examination in Project Management.

(CPSS-Fall 2023)

## General Education Courses

When a course is not specified, refer to the list of approved General Education courses.

### Communication

Course #	Title	Credits
ENGL101	Composition I	3
ENGL230	Technical Writing	3

# Mathematics-Science-Technology

Course #	Title	Credits
CISM125	Introduction to Computers	3
	General Education Science Course (4 credits)	4
	Choose: MATH121-Applications of Mathematics or MATH220-Statistical Methods (4 credits)	4

## Humanities

Course #	Title	Credits
	Choose: ARTS108, PHIL102, PHIL105, PHIL110 or PHIL111 (3 credits)	3

## Program Courses

Course #	Title	Credits
CISM130	Using PC Operating Systems	4
CISM142	Help Desk Support	3
CISM143	Introduction to Project Management	3
CISM146	Computer Networking	4
CISM149	Computer Hardware	4
CISM176	Systems Security Methods	4
CISM182	Linux	4
CISM222	Issues in Computer Security	3
CISM230	Cloud Computing	4
	Choose one: CISM135-Computer Programming C++, CISM148-Problem Solving Using Scripting, CISM154-Computer Programming-Java or CISM174-Computer Programming-Visual Basic (8 credits)	4
	Choose: CISM295-Info. Tech. Cooperative Education or CISM162-Microsoft Excel (3 credits)	3
	<b>Total Credits</b>	<b>60</b>

## Recommended Sequence of Courses

### First Semester

Course #	Title	Credits
CISM125	Introduction to Computers	3
CISM130	Using PC Operating Systems	4
CISM149	Computer Hardware	4
ENGL101	Composition I	3

### Second Semester

Course #	Title	Credits
CISM146	Computer Networking	4
CISM230	Cloud Computing	4
ENGL230	Technical Writing	3
	Choose: MATH121-Applications of Mathematics or MATH220-Statistical Methods (4 credits)	4

## Third Semester

Course #	Title	Credits
CISM142	Help Desk Support	3
CISM143	Introduction to Project Management	3
CISM176	Systems Security Methods	4
CISM182	Linux	4
	Choose: ARTS108, PHIL102, PHIL105, PHIL110 or PHIL111 (3 credits)	3

## Fourth Semester

Course #	Title	Credits
CISM222	Issues in Computer Security	3
	Choose: CISM135, CISM148, CISM154, or CISM174 (4 credits)	4
	Choose: CISM295-Info. Tech. Cooperative Education or CISM162-Microsoft Excel (3 credits)	3
	General Education Science Course (4 credits)	4

# Cybersecurity - Option, Associate in Applied Science

The Cybersecurity Option in Computer Systems Support serves students who seek jobs that require computer and information security skills. These students are not interested transferring to a four-year school. Emphasis is placed on data loss prevention, identity and access management, incident response, and forensic analysis. The option provides preparation for a career as a cybersecurity professional. Student can obtain skills required for several industry certifications including CompTIA Network+, CompTIA Security+, CompTIA Linux+, TestOut Ethical Hacker Pro, and CompTIA CySA+.

For additional program information, please contact faculty advisor, Bojan Zilovic at (609) 343-4959 or [bzilovic@atlanticcape.edu](mailto:bzilovic@atlanticcape.edu) or contact department chair, Dr. Otto Hernandez, at (609) 343-4978 or [hernande@atlanticcape.edu](mailto:hernande@atlanticcape.edu).

## Upon completion of this program students will be able to:

- Recognize professional responsibilities and make informed judgments in cybersecurity practice based on legal and ethical principles;
- Apply security principles and practices to maintain operations in the presence of risks and threats;
- Analyze a broadly defined security problem and apply principles of cybersecurity to design and implement solutions;
- Communicate effectively in a variety of professional contexts;
- Function effectively as a member of a team engaged in cybersecurity activities.

(CYSC-Fall 2023)

## General Education Courses

When a course is not specified, refer to the list of approved General Education courses.

### Communication

Course #	Title	Credits
ENGL101	Composition I	3
ENGL230	Technical Writing	3

### Mathematics-Science-Technology

Course #	Title	Credits
	Choose: MATH121-Applications of Mathematics or MATH220-Statistical Methods (4 credits)	4
	General Education Science Course (4 credits)	4
CISM125	Introduction to Computers	3

### Humanities

Course #	Title	Credits
	General Education Humanities Course (3 credits)	3

# Program Courses

Course #	Title	Credits
CISM142	Help Desk Support	3
CISM143	Introduction to Project Management	3
CISM146	Computer Networking	4
CISM148	Problem Solving Using Scripting	4
CISM176	Systems Security Methods	4
CISM182	Linux	4
CISM215	Ethical Hacking	4
CISM222	Issues in Computer Security	3
CRIM/CISM240	Computer Forensics	4
CISM258	Cyber Defense	4
	Choose: CISM295-Info. Tech. Cooperative Education or CISM162-Microsoft Excel (3 credits)	3
	<b>Total Credits</b>	<b>60</b>

## Recommended Sequence of Courses

### First Semester

Course #	Title	Credits
CISM125	Introduction to Computers	3
CISM142	Help Desk Support	3
CISM146	Computer Networking	4
ENGL101	Composition I	3
	General Education Humanities Course (3 credits)	3

### Second Semester

Choose: MATH121 or MATH220

Course #	Title	Credits
CISM148	Problem Solving Using Scripting	4
CISM176	Systems Security Methods	4
ENGL230	Technical Writing	3
	Choose: MATH121-Applications of Mathematics or MATH220-Statistical Methods (4 credits)	4

### Third Semester

Course #	Title	Credits
CISM143	Introduction to Project Management	3
CISM182	Linux	4
CISM215	Ethical Hacking	4
	General Education Science Course (4 credits)	4

## Fourth Semester

Course #	Title	Credits
CISM222	Issues in Computer Security	3
CRIM/CISM240	Computer Forensics	4
CISM258	Cyber Defense	4
	Choose: CISM295-Info. Tech. Cooperative Education or CISM162-Microsoft Excel (3 credits)	3

# Computer Security Specialist, Professional Series

The Computer Security Specialist is a two-semester series designed for students to gain computer skills with a focus on computer security. Included are a selection of hardware and software, computer applications and introductory programming. Credits earned may be applied to the Computer Security Certificate and the Computer Systems Support, A.A.S. degree.

For additional information, please contact faculty advisor, William Dougherty, at (609) 343-4979 or [doughert@atlanticcape.edu](mailto:doughert@atlanticcape.edu) or contact department chair, Otto Hernandez, at (609) 343-4978 or [hernande@atlanticcape.edu](mailto:hernande@atlanticcape.edu).

## Upon completion of this program students will be able to:

- Develop computer application programs in Java or Visual Basic;
- Prepare for the CompTIA Security+ certification examination;
- Apply productivity software for functional and analytical purposes;
- Design images using computer technology;
- Evaluate the impact of technology on business, government, and other areas of society.

(ZCSS)

## Courses

Course #	Title	Credits
CISM125	Introduction to Computers	3
CISM176	Systems Security Methods	4
CISM222	Issues in Computer Security	3
CRIM/CISM240	Computer Forensics	4
	Choose: CISM154-Computer Programming-Java or CISM174 -Computer Programming-Visual Basic (4 credits)	4
<b>Total Credits</b>		<b>18</b>

# Computer Technician Specialist, Professional Series

The Computer Technician Specialist is a two-semester series designed for students who are interested in acquiring concentrated core knowledge and a practical set of skills including computer hardware and software, network, and network security for employment or advancement in a variety of computer system support fields. Students will be eligible and required to sit for industry certification exams such as CompTIA A+, CompTIA Network+, and CompTIA Security +. Also, courses completed in this professional series fulfill five out of the twelve core program courses in the Computer Systems Support, A.A.S. degree.

Note: Credits may be awarded for prior professional experience (contact advisor for additional information regarding PLA).

For additional information, please contact department chair, Dr. Otto Hernandez, at (609) 343-4978 or [hernande@atlanticcape.edu](mailto:hernande@atlanticcape.edu).

## Upon completion of this program students will be able to:

- Employ critical-thinking and analytical skills to design and implement network computer systems;
- Explain and contrast the different types of system maintenance in both the network and personal computer systems;
- Utilize a network of peers to keep in touch with new technologies and guidance when needed;
- Engage in analytical thinking and logical skills to conduct in deployment, maintenance, and use of both network and individual computer systems.

(ZCTS)

## Courses

Course #	Title	Credits
CISM125	Introduction to Computers	3
CISM130	Using PC Operating Systems	4
CISM149	Computer Hardware	4
CISM146	Computer Networking	4
CISM295	Information Technology Cooperative Education	3
<b>Total Credits</b>		<b>18</b>

## Help Desk Specialist, Professional Series

The Help Desk Specialist Professional Series prepares students for computer technical support. Upon completing the series, they will be qualified to assist customers, troubleshoot hardware and software problems and document solutions. Utilizing knowledge and skills from the series, students will be able to educate users in resolving computer difficulties. This series facilitates a higher level of understanding of the vital communication skills necessary for conflict management and effective user training as well as to provide a strong technical foundation which students may adapt to any environment.

For additional information, please contact faculty advisor, William Dougherty, at (609) 343-4979 or [doughert@atlanticcape.edu](mailto:doughert@atlanticcape.edu) or contact department chair, Dr. Otto Hernandez, at (609) 343-4978 or [hernande@atlanticcape.edu](mailto:hernande@atlanticcape.edu).

### Upon completion of this program students will be able to:

- Identify the people and technology skills needed for operating a help desk;
- Use system software to manage computer resources;
- Apply productivity software for functional and analytical purposes;
- Describe various positions of employment in the help desk profession;
- Evaluate the impact of technology on business, government, and other areas of society.

(ZHEP)

## Courses

Course #	Title	Credits
CISM125	Introduction to Computers	3
CISM130	Using PC Operating Systems	4
CISM142	Help Desk Support	3
	Choose two: TCOM127-Web Technologies, CISM162- Microsoft Excel, CISM164-Microsoft Access (6 credits)	6
<b>Total Credits</b>		<b>16</b>