

# CYBERSECURITY - AAS

**Offered at:** Big Sandy Community and Technical College, Bluegrass Community and Technical College

**Program Plan Number:** 4304047109

Course	Title	Credits
<b>General Education Core</b>		
ENG 101	Writing I	3
MAT 150	College Algebra	3
	Heritage or Humanities Course	3
	Natural Science Course	3
	Social and Behavioral Course	3
	General Education Subtotal	15
<b>Technical Core</b>		
CYS 100	Cybersecurity Orientation	1
CYS 101	Cybersecurity Foundations	3
CYS 130	Introduction to Cyber Forensics	3
CYS 140	Data Security	3
CYS 145	Foundations of Cyber Systems	3
CYS 150	Secure Software Development I	3
CYS 202	Human, Organizational, and Societal Security	3
CYS 245	Advanced Cyber Systems	3
CYS 285	Cryptography	3
ENG 102	Writing II	3
	Oral Communication	3
CYS 299	Cybersecurity Capstone	3
	Technical Core Subtotal	34

*Students must complete one of the tracks listed below to complete the AAS requirements.*

## Secure Coding Track

This program is not currently offered at a KCTCS College.

**Program Plan Number:** 430404701

Course	Title	Credits
<b>Required</b>		
	General Education and Technical Core Required Courses	49
CYS 250	Secure Software Development II	3
	or CYS 251 Secure Software Development Bridge	
CYS 255	Secure Software Development III	3
CYS 258	Survey of Programming Languages	3
CYS 270	Secure Web Applications	3
	Cyber Elective	0-3
	<b>Total Credits</b>	<b>61-64</b>

## Network Defense Track

**Offered at:** Big Sandy Community and Technical College, Bluegrass Community and Technical College

**Program Plan Number:** 430404702

Course	Title	Credits
<b>Required</b>		
	General Education and Technical Core Required Courses	49
CYS 265	Network and Cloud Forensics	3
CYS 247	Linux Security	3
CYS 248	Network Security and Authentication	3
CYS 249	Ethical Hacking	3
	Cyber Elective	0-3
	<b>Total Credits</b>	<b>61-64</b>

## Cyber Forensics Track

**Offered at:** Big Sandy Community and Technical College, Bluegrass Community and Technical College

**Program Plan Number:** 430404703

Course	Title	Credits
<b>Required</b>		
	General Education and Technical Core Required Courses	49
CYS 234	Computer Operating Systems Forensics	3
CYS 265	Network and Cloud Forensics	3
CYS 266	Mobile Device Forensics	3
CYS 249	Ethical Hacking	3
	Cyber Elective	0-3
	<b>Total Credits</b>	<b>61-64</b>

## Cyber Science Track

**Offered at:** Big Sandy Community and Technical College, Bluegrass Community and Technical College

**Program Plan Number:** 430404704

Course	Title	Credits
<b>Required</b>		
	General Education and Technical Core Required Courses	49
	Select one of the following two options:	3
	Heritage or Humanities Course <sup>1 3</sup>	
	Social and Behavioral Course <sup>2 3</sup>	
	Natural Science Course With a lab	3-4
	Select one of the following five options:	3-5
STA 220	Statistics	
STA 210	Statistics: A Force in Human Judgement	
STA 296U	Statistical Methods and Motivations	
MAT 174	Calculus I	
MAT 175	Calculus I	
	Select one of the following two options:	6
	Cyber Electives	
	(Natural Science course(s) AND Quantitative Reasoning Course(s)) <sup>4</sup>	
	<b>Total Credits</b>	<b>64-67</b>

## Cybersecurity Electives

Course	Title	Credits
CYS 231	Internet of Things Security and Forensics	3
CYS 234	Computer Operating Systems Forensics	3
CYS 249	Ethical Hacking	3
CYS 250	Secure Software Development II	3
CYS 258	Survey of Programming Languages	3
CRJ 211	Liability & Legal Issues	3

Electives approved by CYS coordinator <sup>5</sup>

<sup>1</sup> The category fulfilled here must be in the category not fulfilled by the Heritage or Humanities course in the General Education core.

<sup>2</sup> The course taken must be from a different prefix from the Social and Behavioral course taken in the General Education core.

<sup>3</sup> One course with this notation must fulfill the Cross-Cultural designation for General Education certification.

<sup>4</sup> The total number of hours combined of Natural Science and/or Quantitative Reasoning courses for this requirement cannot exceed 6 hours).

<sup>5</sup> CIT 120 may be accepted as an elective only for those bridging from CIT -Programming to Cybersecurity - Secure Coding