

# 2019-2020 TTC Catalog

## Cybersecurity

### Associate in Applied Science

#### 63 Credit Hours

The Cybersecurity program prepares students for entry level careers in cybersecurity, network security, computer/digital forensics, information assurance, and other cyber defense positions. Students will learn the principles and techniques used to identify, search, seize, and analyze digital media and to conduct cyber investigations of endpoint vulnerabilities and attacks. Courses will provide instruction in file access and reconstruction, digital forensics analysis, cryptography, programming, network systems operations and security, network traffic monitoring and threat detection, incident response, risk assessment, and contingency planning. Students enrolled in this program will have access to resources provided by TTC's academic partners including: Cisco, Microsoft, VMware, CompTIA, and Red Hat.

#### General Education Requirements

ECO 210 Macroeconomics 3  
ENG 101 English Composition I 3  
IDS 109 First Year Experience Seminar 3  
MAT 110 College Algebra 3  
or  
MAT 120 Probability and Statistics 3  
or  
MAT 155 Contemporary Mathematics 3  
PHI 110 Ethics 3

Total: 15

#### Major Requirements

CPT 180 Shell Scripting 3  
CPT 282 Information Systems Security 3  
CRJ 232 White Collar Crime Investigation 3  
or  
CRJ 233 Cyber Crimes and the Law 3  
IST 165 Implementing and Administering Windows Directory Services 3  
IST 166 Network Fundamentals 3  
IST 190 Linux Essentials 3  
IST 191 Linux System Administration 3  
IST 201 Cisco Internetworking Concepts 3  
IST 202 Cisco Router Configuration 3  
IST 268 Computer Forensics 3  
IST 291 Fundamentals of Network Security I 3

IST 292 Fundamentals of Network Security II 3  
IST 293 IT and Data Assurance I 3  
IST 294 IT and Data Assurance II 3

Total: 42

**Electives**

Select two courses from the following:

CPT 114 Computers and Programming 3  
CPT 162 Introduction to Web Page Publishing 3  
CPT 202 SQL Programming I 3  
CPT 242 Database 3  
CWE 113 Cooperative Work Experience 3  
CWE 123 Cooperative Work Experience 3  
ENG 260 Advanced Technical Communications 3  
HSM 101 Introduction to Homeland Security 3  
HSM 104 Terrorism and Homeland Security 3  
HSM 203 Intelligence Analysis and Security Management 3  
IST 164 Implementing Windows Network Infrastructure Services 3  
IST 192 Linux Network Applications 3  
IST 198 Cloud Essentials 3  
IST 205 Cisco Advanced Routing 3  
IST 206 Cisco Remote Access 3  
IST 207 Cisco Multilayer Switching 3  
IST 253 LAN Service and Support 3  
IST 263 Designing Windows Network Security 3  
IST 269 Digital Forensics 3  
IST 286 Technical Support Internship I 3  
IST 287 Technical Support Internship II 3  
IST 298 Advanced Cloud Computing 3

Total: 6