# Bachelors of Applied Technology in Cyber Security Degree (131 Credit Hours Min.)

## Program Goals & Outcomes

The Bachelor of Applied Technology in Cyber Security prepares students for employment in local, state and federal agencies as well as private positions such as Cyber Security analysis, Cyber Security threat analyst, product manager cyber management, Cyber threat vulnerability, incidence response, Digital Forensics, Cyber security tester, compliance risk analysis.

The Bachelors in Cyber Security includes the following goals and objectives:
1. Implement best practices and risk management in Cyber Security;
2. Communication verbally and written in a professional environment related to Cyber Security;
3. Develop skills to investigate, detect, contain, and detour unauthorized access of computer networks;
4. Analyze the relationships between the laws, ethics, privacy, and security;
5. Analyze and evaluate technologies in wireless, remote access, and digital forensics; and
6. Perform duties as a Cyber Security professional.

## Program Outcomes

Students will be employable in the area of Cyber Security and will be prepared to pass industry certification examinations.

## Program Entrance Requirements

Admission to Rose State College.
Completion of an Associate in Applied Science degree or higher with a cumulative GPA of 2.5 or higher. Students must complete all technical coursework with a grade of C or higher and maintain an overall cumulative GPA of 2.5 or higher to graduate.

## Degree Awarded

Bachelor in Applied Technology

## Contact Information

Business & Information Technology Division
(405) 733-7340

Program Director, Professor Ken Dewey
(405) 733-7977

Business & Information Technology Division Advisor
(405) 736-0348

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## GENERAL EDUCATION REQUIREMENTS (40 hours min.)   SEMESTER COMPLETED   GRADE/CREDIT HRS.

### Communications (9 hours)

| Course | SEMESTER COMPLETED | GRADE/CREDIT HRS. |
|---|---|---|
| ENGL 1113  English Composition I+ | | |
| ENGL 1213  English Composition II+ | | |
| MCOM 1213  Public Speaking | | |

### U.S. History/U.S. Government (6 hours)

| Course | SEMESTER COMPLETED | GRADE/CREDIT HRS. |
|---|---|---|
| HIST 1483  U.S. History to 1877 **OR** HIST 1493  U.S. History Since 1877 | | |
| POLS 1113  American Federal Government | | |

### Mathematics (6 hours)
**Students must earn a "C" or better in these courses to be eligible for graduation.**

| Course | SEMESTER COMPLETED | GRADE/CREDIT HRS. |
|---|---|---|
| MATH 1513 College Algebra+ | | |
| MATH 2103  Discrete Mathematics | | |

### Humanities (6 hours minimum)

| Course | SEMESTER COMPLETED | GRADE/CREDIT HRS. |
|---|---|---|
| PHIL 2303  Introduction to Ethics+ **OR** PHIL 2603 Ethics of Data Science+ | | |
| Humanities Elective—See courses listed in the RSC Academic Catalog. | | |

### Sciences (7 hours minimum—one must include lab)

Acceptable courses include HSBC 1104, HSBC 1224, HSBC 2103, HSBC 2114, GEOG 1114, or any course with the following prefixes:

ASTR, BIOL, CHEM, ENSC, GEOL, METR, PHSC, PHYS.

| Course | SEMESTER COMPLETED | GRADE/CREDIT HRS. |
|---|---|---|
| | | |
| | | |

### Liberal Arts (6 hours)

| Course | SEMESTER COMPLETED | GRADE/CREDIT HRS. |
|---|---|---|
| ECON 2103  Personal Finance | | |
| Liberal Arts Elective—See courses listed in the RSC Academic Catalog. | | |

## PROGRAM REQUIREMENTS (48 hours)
**Students must earn a "C" or better in these courses to be eligible for graduation.**

| Course | SEMESTER COMPLETED | GRADE/CREDIT HRS. |
|---|---|---|
| CIT 1113  Fundamentals of Programming Logic **OR** any Programming Language | | |
| CIT 1203  Script Programming+ | | |
| CIT 1503  Network+ Certification Preparation | | |
| CIT 1523  Computer Hardware & Operating Systems | | |
| CIT 1533  Principles of Cybersecurity | | |
| CIT 1613  Introduction to Java® Programming+ | | |
| CIT 2053  Network Administration | | |
| CIT 2243  Unix®/Linux® | | |

# BACHELORS OF APPLIED TECHNOLOGY IN CYBER SECURITY DEGREE (131 CREDIT HOURS MIN.)

## PROGRAM REQUIREMENTS, Continued

**Students must earn a "C" or better in these courses to be eligible for graduation.**

| Course | | |
|---|---|---|
| CIT 2323  Security+ Certification Preparation | | |
| CIT 2433  Cloud+ Certification Preparation | | |
| CIT 2523  Information Security Management+ | | |
| CIT 2533  Ethics in Information Technology | | |
| CIT 2553  Digital Forensics+ | | |
| CIT 2563  Cryptography & Trusted Systems+ | | |
| CIT 2603  Ethical Hacking and Systems Defense+ | | |
| CIT 2633  Enterprise Threat Assessment+ | | |

## UPPER DIVISION COURSES (43 hours)

**Students must earn a "C" or better in these courses to be eligible for graduation.**

| Course | | |
|---|---|---|
| BA 3001  Employment Orientation+ | | |
| CIT 3103  Applied Incident Response+ | | |
| CIT 3113  Applied Security Scripting+ | | |
| CIT 3123  Applied Virtualization Fundamentals | | |
| CIT 3203  Applied Reverse Engineering+ | | |
| CIT 3213  Applied Data Recovery and Reporting+ | | |
| CIT 3223  Applied Networking Forensics+ | | |
| CIT 3303  Applied Networking Design and Configuring+ | | |
| CIT 3403  Applied Cloud Computing | | |
| CIT 4003  Data Structures+ | | |
| CIT 4013  Application Development+ **OR** CIT 4023  Applied Mobile Development+ | | |
| CIT 4806  IT Internship+ | | |
| CIT 4903  BAT Capstone+ **OR** proof CISM/CISSA/CISSP Certification | | |
| MGMT 4113  IT Project Management | | |

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## Suggested Order of Enrollment
The following courses should be taken in the sequence indicated. The "+" symbol represents a prerequisite for the course. Any course offering is subject to change without notice.

| 1st Fall Semester | 1st Spring Semester |
|---|---|
| (1st 8 week) CIT 1613 Intro to Java Programming+<br>(1st 8 week) MATH 1513 College Algebra+<br>(2nd 8 week) CIT 3103 Applied Incident Response+<br>(2nd 8 week) CIT 3113 Applied Security Scripting+<br>(2nd 8 week) MATH 2103 Discrete Mathematics+ | (1st 8 week) PHIL 2303 Introduction to Ethics+<br>　OR PHIL 2603 The Ethics of Data Science+<br>(1st 8 week) CIT 3123 Applied Virtualization Fundamentals<br>(1st 8 week) PHSC 1313 General Physical Science+<br>(2nd 8 week) CIT 3203 Applied Reverse Engineering+<br>(2nd 8 week) 3 hours of Humanities Electives |
| **1st Summer Semester**<br>CIT 3213 Applied Data Recovery and Reporting+<br>GEOG/BIOL | **2nd Fall Semester**<br>(1st 8 week) CIT 3223 Applied Networking Forensics+<br>(1st 8 week) MGMT 4113 IT Project Management<br>(2nd 8 week) CIT 3303 Applied Networking Design & Configuration+<br>(2nd 8 week) CIT 3403 Applied Cloud Computing |
| **2nd Spring Semester**<br>(1st 8 week) CIT 4003 Data Structures+<br>(1st 8 week) CIT 4013 Application Development+<br>　OR CIT 4023 Applied Mobile Development+<br>(2nd 8 week) CIT 4806 IT Internship+<br>(2nd 8 week) CIT 4903 BAT Capstone+ | **Interim Session (Any Semester)**<br>BA 3001 Employment Orientation |

**BACHELOR OF APPLIED TECHNOLOGY—3191**