

Cybersecurity

120 credit hours total

YEAR 1		YEAR 2		YEAR 3		YEAR 4	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
*MATH 220 (4) Analytic Geometry and Calculus I KSC-3	MATH 221 (4) Analytic Geometry and Calculus II PR: MATH 220 ≥ C	CIS 300 (3) Data and Program Structures PR: CIS 200 ≥ C	MATH 510 (3) Discrete Mathematics PR: MATH 221	CIS 308 (1) C Language Laboratory PR: CIS 300 ≥ C	CRIM 550 (3) Technocrime, Security and Society PR: SOCIO 211	CIS 551 (3) Fundamentals of Computer and Information Security PR: CIS 450 or 520 ≥ C	CIS 599 (3) Cybersecurity Project PR: CIS 551 ≥ C
CIS 115 (2) Introduction to Computing Science	CIS 200 (4) Programming Fundamentals PR: CIS 116 ≥ C PR/CO: MATH 205 or 220 ≥ C	CIS 301 (3) Logical Foundations of Programming PR: CIS 200 ≥ C	CIS 400 (3) Object-Oriented Design, Implementation and Testing PR: CIS 300 ≥ C	CIS 501 (3) Software Architecture and Design PR: CIS 400 ≥ C	CIS 450 (3) Computer Architecture and Operations PR: ECE 241 ≥ C PR/CO: CIS 308	CIS 525 (3) Introduction to Network Programming PR: CIS 300, 308 ≥ C	CIS 655 (3) Security and Reliability of Computing Systems PR: CIS 450 OR ECE 441 ≥ C
CIS 116 (1) Introduction to Programming	ECE 241 (3) Introduction to Electrical and Computer Engineering	*ENGL 200 (3) Expository Writing II KSC-1 PR: ENGL 100	CIS 415 (3) Ethics and Conduct for Computing Professionals PR: CIS 300 ≥ C	CIS 505 (3) Introduction to Programming Languages PR: CIS 400 ≥ C	CIS 553 (3) Fundamentals of Cryptography PR: CIS 300 ≥ C MATH 510 ≥ C	CIS 560 (3) Database System Concepts PR: CIS 300, 301 ≥ C PR/CO: MATH 510	CIS 755 (3) Systems Security PR: CIS 551 or 751 ≥ C
*ENGL 100 (3) Expository Writing I KSC-1	PHYS 113 (4) General Physics I OR	PHYS 114 (4) General Physics II PR: PHYS 113 OR	*SOCIO 211 (3) Introduction to Sociology KSC-5	*Elective (3) Social and Behavioral Sciences KSC-5	CIS 575 (3) Introduction to Algorithm Analysis PR: CIS 300/301 PR: MATH 510 ≥ C	▲ Elective (3) Math	Elective (3-4) Unrestricted
*COMM 106 (3) Public Speaking KSC-2	PHYS 213 (5) Engineering Physics I PR: MATH 221 OR	PHYS 214 (5) Engineering Physics II PR: PHYS 213, MATH 221 OR	*Elective (3) Institutional KSC-7	*Elective (3) Arts and Humanities KSC-6	ENGL 415 (3) Written Communication for Engineers PR: ENGL 200 OR	*Elective (3) Institutional KSC-7	*Elective (4-5) Natural and Physical Sciences KSC-4
*Elective (3) Arts and Humanities KSC-6	PHYS 223 (5) Physics I, Mechanics and Thermodynamics PR: MATH 221	PHYS 224 (5) Physics II, Electromagnetism, and Sound PR: PHYS 223, MATH 221		STAT 510 (3) Introductory Probability and Statistics I PR: MATH 221	ENGL 516 (3) Communication for the Sciences PR: ENGL 200		
CIS 015 (0)	CIS 018 (0)	CIS 018 (0)	CIS 018 (0)	CIS 018 (0)	CIS 018 (0)	CIS 018 (0)	CIS 018 (0)
(16 credit hours)	(15-16 credit hours)	(13-14 credit hours)	(15 credit hours)	(16 credit hours)	(15 credit hours)	(15 credit hours)	(13-15 credit hours)

KEY

 = Prerequisite for another course	PR = Prerequisite requirement	PR/CO = Prerequisite or concurrent requirement
* = K-State Core (KSC) course	▲ = See department approved electives	● = Only offered in the semester shown

Cybersecurity Curriculum Notes

To graduate with a B.S. in cybersecurity, students must have at least a 2.3 GPA in all classes at the 400 level or above taken for undergraduate credit from the Carl R. Ice College of Engineering at Kansas State University. Course grades that have been removed by the K-State Retake policy will not apply to this GPA calculation.

All students new to the CS department must complete CIS 015.

Additional information is available at cs.k-state.edu/academics/undergraduate/cybersecurity.

Electives

The Math elective must have departmental approval.

Students who satisfy all or part of K-State Core Natural and Physical Sciences electives (Requirement #4) and/or Institutional Electives (Requirement #7) with courses that satisfy other degree requirements may use additional unrestricted electives to meet the degree requirement of 120 credit hours.

Communications Overlay

All students must complete at least two courses (6 hours), which may be used as unrestricted electives or, where applicable, K-State Core requirements, from the following list:

- Any K-State Core Communications course (KSC-2) (3)
- COMM 323 Nonverbal Communication (3)

- COMM 326 Group Communication (3)
- MANGT 220 Principles of Management (3)
- THTRE 261 Fundamentals of Acting (3)
- THTRE 265 Fundamentals of Improvisation I, II (3)

K-State Core

The K-State Core (KSC) is the university's version of the systemwide general education framework established by the Kansas Board of Regents.

KSC requirement 1 – English (6 hours)

KSC requirement 2 – Communications (3 hours)

KSC requirement 3 – Math and Statistics (3 hours)

KSC requirement 4 – Natural and Physical Sciences (4-5 hours)

KSC requirement 5* – Social and Behavioral Sciences (6 hours)

KSC requirement 6* – Arts and Humanities (6 hours)

KSC requirement 7 – Institutional Electives (6 hours)

To view course lists for each requirement, visit k-state.edu/provost/kstate-core.

**Requires two courses from two different subject areas.*