Fall 2026 CSCI/CSCY Courses

<table>
<tr><th colspan="2">CS Breadth Courses</th></tr>
<tr><td colspan="2">-System Software-</td></tr>
<tr><td colspan="2">CSCI 3511 – Hardware/Software Interface (restricted to CSCI-BS students)
Instructor: John Pace
Pre-reqs: CSCI 2525</td></tr>
<tr><td colspan="2">-Secure Computing-</td></tr>
<tr><td>CSCI 4741 – Principles of Cybersecurity*
Instructor: Haadi Jafarian
Pre-req: CSCI 3761

CSCI 4742 – Cybersecurity Programming and Analysis
Instructor: Victor Kebande
Pre-req: CSCI 3415</td><td>CSCI 4743 – Cyber & Infrastructure Defense
Instructor: Haadi Jafarian
Pre-req: CSCI 3761</td></tr>
<tr><td colspan="2">-Data Science-</td></tr>
<tr><td>CSCI 4580 – Data Science*
Instructor: Farnoush Banaei-Kashani
Pre-reqs: CSCI 3287, CSCI 3412, and (MATH 3191 OR MATH 3195)</td><td>CSCI 4931 – Deep Learning
Instructor: Ashis Kumer Biswas
Pre-reqs: CSCI 3412 and (MATH 3191 OR MATH 3195)</td></tr>
<tr><td colspan="2">-Scientific Computing-</td></tr>
<tr><td>CSCI 3650 – Probability and Computing
Instructor: Salim Lakhani
Pre-reqs: CSCI 2511 and MATH 2411</td><td>CSCI 4650 – Numerical Analysis
Instructor: Julien Langou
Pre-reqs: MATH 3191 OR MATH 3195</td></tr>
<tr><td colspan="2">-Capstone Project-</td></tr>
<tr><td colspan="2">CSCI 4738 – Senior Design I
Instructor: Debra Parcheta
Pre-reqs: CSCI 3287, CSCI 3415, CSCI 3453, and CSCI 3508</td></tr>
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*Asterisk denotes an online asynchronous course.

Fall 2026 CSCI/CSCY Courses

CS Technical Electives

CSCI 3310 – App Development for Mobile Devices
(restricted to CSCS-BA students)
Instructor: Salim Lakhani
Pre-reqs: CSCI 2312 and CSCI 2421

CSCI 3740 – Computer Security
Instructor: Victor Kebande
Pre-reqs: CSCI 2312 and CSCI 2421

CSCI 3751 – Fundamentals of UNIX
Instructor: Sung Nam
Pre-req: CSCI 2312 and CSCI 2421

CSCI 4230 – Natural Language Processing with GenAI*
Instructor: Farnoush Banaei-Kashani
Pre-req: CSCI 3412 and MATH 2411

CSCI 4625 – Computer Vision
Instructor: Mazen Al Borno
Pre-reqs: CSCI 3412 and (MATH 3191 OR MATH 3195)

CSCI 4771 – Intro to Mobile Computing
Instructor: Zhengxiong Li
Pre-reqs: CSCI 3453 and CSCI 3761

CSCI 4772 – Mobile & IoT Security*
Intructor: Zhengxiong Li
Pre-reqs: CSCI 3453 and CSCI 3761

CSCI 4750 – Satellite Communication and Networking
Instructor: Xiaojian Wang
Pre-reqs: CSCI 3761

CSCI 4800 – GenAI
Instructor: Shawn McCarthy
Pre-reqs: CSCI 3412

CSCI 4932 – Reinforcement Learning*
Instructor: Ashis Biswas
Pre-reqs: CSCI 3421 and MATH 2411

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Fall 2026 CSCI/CSCY Courses

Cybersecurity Core	Cybersecurity Tech Electives
CSCY 3740 - Computer Security Instructor: Victor Kebande Pre-reqs: CSCI 2312 and 2421 **CSCY 3765 – Secure Network & Systems Programming** Instructor: Tiago Perez Pre-req: CSCI 3761 **CSCY 4739 – Senior Design I** Instructor: Tiago Perez Pre-req: CSCI 3453, CSCY 4741, CSCY 4742, CSCY 4743 **CSCY 4141 – Principles of Cybersecurity*** Instructor: Haadi Jafarian Pre-reqs: CSCI 3761 **CSCY 4742 – Cybersecurity Programming and Analysis** Instructor: Victor Kebande Pre-reqs: CSCI 3415 **CSCI 4772 – Mobile and IoT Security*** Instructor: Zhengxiong Li Pre-reqs: CSCI 3453 and CSCI 3761	**CSCY 3800-001 – Information Security** Instructor: Victor Kebande Pre-reqs: CSCI 2421 **CSCY 3800-HL1 – Ethical Hacking** Instructor: Tiago Perez Pre-reqs: CSCY 2930 and CSCI 3761 **CSCY 4800-001 – AI in Cybersecurity** Instructor: Tiago Perez Pre-reqs: CSCY 3765 **CSCY 4800-002 – Data Security** Instructor: Victor Kebande Pre-reqs: CSCI/CSCY 3740 and CSCI 3761

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Fall 2026 CSCI/CSCY Courses

Special Topics Course Descriptions

CSCI 4800 GenAI: Develop a solid understanding of generative deep learning and its applications. The course will provide hands-on experience with designing, implementing, and training generative models. Students will get access to Nvidia cloud and professional certification against (4) topic areas.

CSCY 3800-001 Information Security: This course introduces students to the foundational principles, threats, and defense mechanisms in the field of information security. Students will explore how vulnerabilities and threats impact the digital environment, and how to apply security models and methodologies to safeguard sensitive information. Topics include threat and risk analysis, user authentication, access control models, malicious software, application-layer attacks, and security management practices. Ethical considerations in information security are also examined, providing students with a holistic understanding of the field and preparing them to make informed, responsible decisions in professional practice.

CSCY 3800-HL1 Ethical Hacking: This course provides a broad understanding of ethical hacking, including techniques for identifying vulnerabilities, securing systems, and protecting against cyber threats. The course is hands-on and covers a wide range of hacking tools and techniques used by ethical hackers.

CSCY 4800-001 AI in Cybersecurity: This course explores the intersection of artificial intelligence (AI) and cybersecurity, examining how machine learning and data-driven techniques are used to detect, prevent, and respond to modern cyber threats. Students will study foundational AI and machine learning concepts and apply them to real-world security challenges such as intrusion detection, malware classification, log analytics, and threat intelligence. By the end of the course, students will understand both how AI strengthens cybersecurity defenses and how AI systems themselves must be secured, governed, and responsibly deployed.

CSCY 4800-002 Data Security: This course explores advanced topics in Data Security, focusing on data-driven security and how digital data can be protected across its various types and states. Students will conduct threat modeling for data systems, simulate data breaches and examine ethical and legal considerations, and apply modern security measures including machine learning protection and compliance tools. This course provides both theoretical frameworks and hands-on perspectives to enable students to critically evaluate and implement data protection strategies in diverse environments.

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