Cybersecurity is a computing-based discipline involving technology, people, information, and processes to protect computing systems from adversaries. It involves the creation, operation, analysis, and testing of secure computing systems. Cybersecurity professionals know how to secure websites, mobile apps, operating systems, databases, networks, and embedded computing systems. They stay current on the latest computer vulnerabilities, help prevent employees from falling victim to social engineering attacks, collaborate with leadership to mitigate and manage risks, monitor systems to identify intruders, and respond effectively when successful attacks occur. Penetration testers, also known as Red Team members, are hired by companies and organizations to identify vulnerabilities by ethically hacking into systems. Digital forensics investigators use sophisticated tools to track down attackers and capture evidence that can be used in court. Because of the influence and leadership roles we expect graduates to have, our students will be encouraged to develop high moral and ethical standards as well as being conversant with and compliant with professional and legal standards.

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*THESE CLASSES FILL BOTH UNIVERSITY CORE AND PROGRAM REQUIREMENTS*

Graduation Requirements:
- Minimum residence hours required: 30.0
- Minimum hours needed to graduate: 120.0

Suggested Sequence of Courses

1st Semester
- Freshman Year
- First-year Writing or American Heritage: 3.0
- IT&C: 1013.0
C S 1423.0  
MATH 1124.0  
Religion Cornerstone course 2.0  
Total Hours 15.0  
2nd Semester  
First-year Writing or American Heritage 3.0  
PHSCS 1213.0  
C S 2353.0  
IT&C 1243.0  
Religion Cornerstone Course 2.0  
Total Hours 14.0  
3rd Semester  
IT&C 210A2.0  
IT&C 210B2.0  
IT&C 291R0.5  
Civilization I3.0  
STAT 201*3.0  
Global & Cultural Awareness 3.0  
Religion Cornerstone course 2.0  
Total Hours 15.5  
*STAT 121 may be substituted with a grade of B- or higher. STAT AP credit will not subsitute.  
4th Semester  
C S 2363.0  
Biological Science 3.0  
IT&C 2523.0  
IT&C 2930.5  
IT&C 291R0.5  
Civilization II / Arts or Letters 3.0  
Religion Cornerstone course 2.0  
Total Hours 15.0  
5th Semester  
IT&C 3274.0  
IT&C 3443.0  
IT&C 3473.0  
IT&C 291R0.5  
WRTG 3163.0  
Religion elective 2.0  
Total Hours 15.5  
6th Semester  
IT&C 3503.0  
IT&C 3663.0  
ECON 110 or PSYCH 1113.0  
General Elective or Minor course 3.0  
Religion Elective 2.0  
Total Hours 14.0  
7th Semester  
Senior Year  

Students must have a minimum of 120 total hours to graduate with this major.
Take the following 3 times:
IT&C 291R - Seminar 0.5
You may take this course up to 3 times.
requirement 6 Complete 6.0 hours from the following course(s)
Courses outside of those listed must be pre-approved by the program. IT&C 492R and 515R must have a cybersecurity-related topic.
EC EN 526 - Wireless Networking 3.0
IT&C 441 - Embedded Computer Systems 3.0
IT&C 492R - Special Problems in Information Technology & Cybersecurity 3.0v
IT&C 515R - Special Topics in Information Technology & Cybersecurity 3.0v
IT&C 529 - Advanced Networking 3.0
IT&C 544 - System Administration 3.0
IT&C 548 - Cyber-Physical Systems 3.0
MATH 485 - Mathematical Cryptography 3.0
requirement 7
Students must complete 200 hours of pre-approved cybersecurity-related work after declaring the major and must submit a signed letter from an employer during the IT&C 447 course.
requirement 8
Complete department packet and exit interview.
THE DISCIPLINE:
Cybersecurity is a computing-based discipline involving technology, people, information, and processes to protect computing systems from adversaries. It involves the creation, operation, analysis, and testing of secure computing systems. Cybersecurity professionals know how to secure websites, mobile apps, operating systems, databases, networks, and embedded computing systems. They stay current on the latest computer vulnerabilities, help prevent employees from falling victim to social engineering attacks, collaborate with leadership to mitigate and manage risks, monitor systems to identify intruders, and respond effectively when successful attacks occur. Penetration testers, also known as Red Team members, are hired by companies and organizations to identify vulnerabilities by ethically hacking into systems. Digital forensics investigators use sophisticated tools to track down attackers and capture evidence that can be used in court.
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CAREER OPPORTUNITIES:
The field has grown tremendously in recent years and is expected to continue rapid growth in the coming decades. BYU's Cybersecurity program is recognized as a National Center of Academic Excellence in Cyber Defense by the NSA/DHS and has placed students in the public and private sector at top companies both small and large. Graduates fill roles as penetration testers, forensics computer analysts, network and systems administrators, data security engineers, information security analysts, security architects, IT security engineers, and Chief Information Security Officers.
MAP DISCLAIMER
While every reasonable effort is made to ensure accuracy, there are some student populations that could have exceptions to listed requirements. Please refer to the university catalog and your college advisement center/department for complete guidelines.
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ADVisement CENTER INFORMATION