The **Bachelor of Science** in

Cybersecurity, IST Emphasis

Protect and secure data.

Cybersecurity affects everyone – including individuals, organizations, governments and society at large. Despite this, industry reports indicate a shortage of qualified professionals to fill cybersecurity-related roles. Demand for professionals who can help secure data, information technology assets and the nation's critical infrastructure continues to grow. Those with training in modern cybersecurity techniques and methods are highly sought-after by employers across industries.

The BS in Cybersecurity, Emphasis in Information Systems and Technology

The BS in Cybersecurity with an emphasis in Information Systems and Technology is a 123-credit-hour program that requires 33-credit hours of core and 75-credit hours of emphasis specific coursework. The IST emphasis provides both technical and business skills. It focuses on applied aspects of cybersecurity and is suitable for students interested in pursuing cybersecurity management and analyst roles in industry and government.

The core coursework includes business or technical writing, introduction to computing, programming and data structures, object-oriented programming, computer organization and architecture, Linux environment and programming, introduction to information security or cyber threats and defense, secure software development, information security risk management and business continuity, computer forensics, and introduction to cryptography for computer security while the emphasis courses are focused on preparation for business and management aspects of cybersecurity.

Throughout the program, students gain skills in the principles of cybersecurity, security of data networks, penetration testing and risk management. Upon completing the degree program, students will be able to apply fundamental security principles and formal security models to solve problems in cybersecurity; develop, maintain and implement information security policies; and communicate effectively with internal and external stakeholders about cybersecurity issues.

Enhance your experience by joining UMSL's Information Technology and Cybersecurity Club, which engages students in national competitions like the Collegiate Cyber Defense Competition, hosts cyber clinics as well as guest presentations on cybersecurity tools and new developments in the IT field.

UMSL | Business
University of Missouri–St. Louis

Among the Best

The BS in Cybersecurity with an IST emphasis is earned through our internationally recognized College of Business Administration, ranked among the top 2 percent of business schools in the world thanks to dual AACSB accreditation in both business and accounting.

Business students learn and collaborate in a state-of-the-art facility outfitted with smart classrooms containing all the latest teaching technology, cutting edge seminar rooms, group learning environments, community spaces and a real-time stock ticker, while the Cybersecurity and Information Technology Innovation Lab at UMSL provides students with access to contemporary technologies and tools for advanced learning, research and hands-on experience. The college also offers frequent career fairs, including career-specific opportunities and internships, to give students hands-on experience. In addition, faculty engage students in service learning opportunities which provide value and help transform lives in surrounding communities.

Center for Excellence

UMSL is designated as a National Center of Academic Excellence (CAE) in Cyber Defense Education by the National Security Agency (NSA) and the Department of Homeland Security (DHS). The CAE designation is awarded to universities meeting the highest standards of cybersecurity education and provides students opportunities to access industry and government scholarships geared toward CAE schools; to access career fairs specifically designed for CAE schools; and to apply one year towards a typical five-year work requirement for industry certifications by attending CAE designated schools.

Serious education. Serious value.

The BS in Cybersecurity is designed to provide specialized knowledge, skills and training in a flexible format, with classes available in-person, online and in a hybrid format. You'll learn from highly qualified educators who are not only academics, but cybersecurity practitioners and active consultants bridging the classroom with the real world.

The University of Missouri–St. Louis provides the knowledge, resources, tools and support students need to be successful in our programs. Our comprehensive student support services include workshops, tutoring and career services to help you develop skills and strategies to be successful in the classroom and beyond. UMSL welcomes transfer students and our transfer specialists will assist you with getting the most transfer credits possible. We're also committed to increasing access to higher education, and as such, UMSL is consistently ranked number one in affordability in the St. Louis region.

Learn more at cybersecurity.umsl.edu

Career Opportunities

Cloud Security Specialist
Cyber Defense Analyst
Cyber Defense Incident Responder
Cybersecurity Awareness and Training Analyst
Cybersecurity Engineer
Cybersecurity Forensics Analyst
Cybersecurity Risk Management Analyst
Cybersecurity Specialist
Information Security Analyst
Information Systems Security Manager
IT/Security Auditor
Malware Analyst
Security Architect
Vulnerability Assessment Analyst

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The University of Missouri–St. Louis is the largest public research university located in Missouri's most populous and economically important region. UMSL provides high-quality, affordable education to one of the most diverse student bodies in the state. No university is better connected to the surrounding region than UMSL. Seventy-three percent of our graduates stay in St. Louis. The region needs a workforce well-equipped with valuable cybersecurity knowledge and skills and UMSL is prepared to help you meet that need. Choose the University of Missouri–St. Louis for cybersecurity.

CHOOSE UMSL